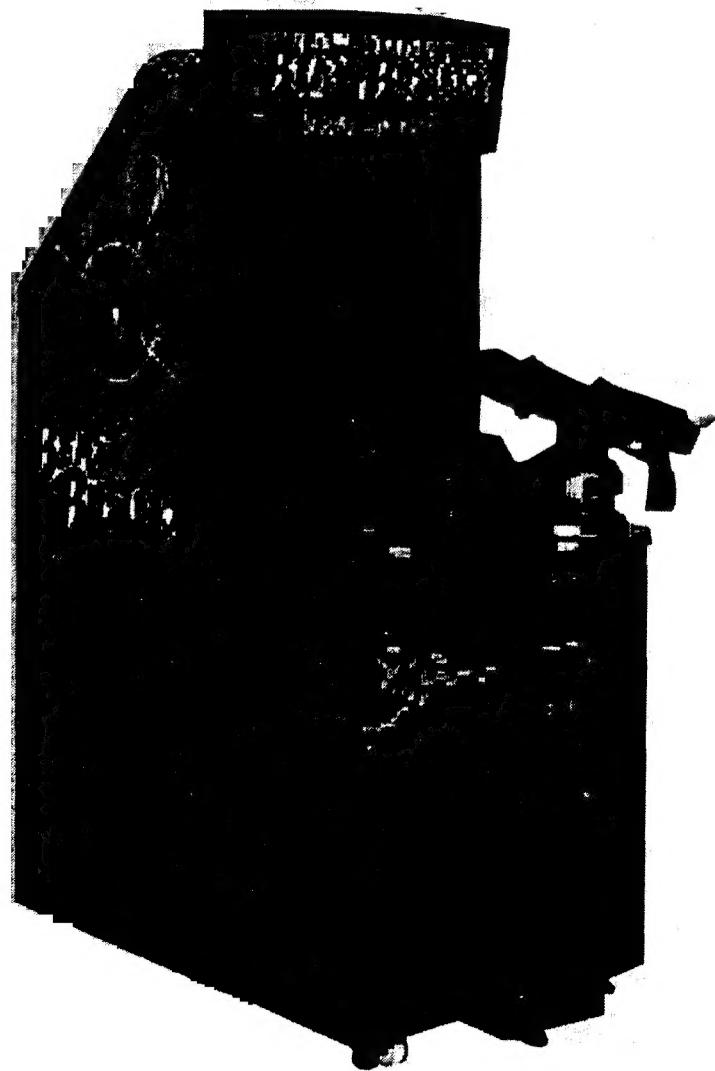


SNK.



Preliminary

BEAST BUSTERS

SECOND NIGHTMARE

SECOND NIGHTMARE™

BEAST BUSTERS USER'S MANUAL



Warning

- Be sure to read this user's manual before use.
- Keep this manual nearby when operating this cabinet.

IMPORTANT NOTICE

The coin door assembly used on this cabinet is equipped to accept a dollar bill acceptor. For this application all needed wiring connections are conveniently located inside the game.

The following validators can accommodate the coin door.

HOLE POSITION:

#1	MARS 2000 SERIES
#2	DBV45 (JCM)
#3	Not used at this time
#4	DS101 (Diversified Systems)

FCC NOTICE

This equipment has been tested and found to comply with the limits set forth for a Class A computing device pursuant to Subpart J of Part 15 of FCC Regulations, which are designed to provide reasonable protection against radio frequency interference when operated in commercial environment.

Operation of this equipment in a residential environment may cause interference to radio and television reception which the operator, at his own expense, will be required to correct.

TO OUR VALUED CUSTOMERS

Thank you for your purchase of the **Beast Busters Second Nightmare** cabinet.

This user's manual is targeted at users, technicians, and operators of this product. Various methods for placing, operating, maintaining, testing, and moving this product are explained herein. These procedures listed should only be performed by those who have carefully read and understood this manual.

Finally, keep this manual where it can easily be found for reference during routine operation, etc.

Those who replace parts, carry out maintenance and testing, and handle malfunctions should be limited to maintenance staff and technicians.

[In-store Maintenance]

In-store maintenance staff refers to those who have experience in handling amusement machines, and under the supervision of the amusement machines' owner or operator are engaged in the daily upkeep of machines, including installation, maintenance checks, and replacement of units and disposable parts.

[Technicians]

Technicians refer to those who are involved in the designing, manufacture, checking, and maintenance at an amusement machine manufacturer and also have advanced training or equivalent experience in the daily upkeep and repair of amusement machines.

Precautions for safe operation

The procedures listed herein must be carefully followed to ensure both safe operation and to prevent personal injury and property damage. Use the product only after sufficiently understanding the procedures listed.

■ Signal Icons

	
Ignoring these warnings and mishandling of the cabinet may result in death or serious injury.	Ignoring these warnings and mishandling of the cabinet may result in injury or property damage.

Moving, Shipping



- Before moving the cabinet, unplug the power cord. This is necessary to avoid accidents and damage to the cabinet.
- Do not damage the power cord and ground cable when moving the cabinet. This may cause accidents involving fire and electric shock as well as damage to the cabinet.
- To prevent accidents when moving and shipping the cabinet, be sure to do so with an appropriate number of people to safely handle the cabinet and be very careful of surrounding conditions.
- When moving the cabinet, be careful for safety around you and create a path sufficient to move the cabinet.
- Do not damage the wiring. Doing so may cause fires and electric shock.



- Do not move the cabinet with the adjusters lowered. It may cause injury and accidents.
- Do not touch areas other than those indicated. This may cause accidents and personal injury.
- When moving the cabinet, support it by grabbing the handles at the side of the cabinet. Especially when moving or carrying the cabinet over graded surfaces, be sure to lift the cabinet by the handles. This is necessary to prevent accidents and personal injury.

Installation



- Install the cabinet following the explanations and procedures in this manual. Failing to do so may create the danger of electric shock and personal injury.
- Be sure to connect the ground cord. If the cabinet is not properly grounded, it may cause an electric shock in the event of a short circuit.

- **This cabinet is for indoor-use only. Under no circumstances should it be placed outdoors or in the locations listed below. So doing may cause damage to the cabinet and accidents.**
 - Indoor pools, areas near a shower, and other locations where humidity is high.
 - In areas that are excessively hot, like next to a heater. In areas around dangerous materials.
 - Near ventilators and areas of severe temperature extremes.
 - On inclines, areas subject to severe jolts, and other unstable locations.
 - In areas exposed to direct sunlight.
 - In places that are excessively dusty.
 - In areas prone to leaking and flooding.
 - Near fire fighting facilities and emergency exits.
- **Do not block the ventilation openings in the rear of the cabinet. Doing so will increase the internal temperature of the cabinet and may cause fire and damage to the cabinet.**
- **Do not place containers with liquids (drinks, etc.) or small metal objects on the machine. Should liquids or conductive materials fall into the machine, it may result in fire and electric shock.**
- **Be sure to use an outlet rated at AC220V – 240V and insert the plug into a specialized outlet. If other high-capacity products (air conditioners and large-size cabinets, etc.) are used on the same power line, this may result in accidents such involving fire and electric shock as well as damage to the cabinet.**
- **Do not damage, modify, or place heavy objects on the cord. Also, do not place the cord near heated objects. Doing so may break the cord and cause fire and electric shock.**



Warning

- **When installing the cabinet, be sure to adjust the nine adjusters on the bottom of the cabinet to bring it level. Failing to do so may cause accidents and personal injury should the cabinet tip over or fall. Also it may cause the coin selection function to malfunction.**
- **Do not place the power cord in areas where people can step on or kick it. Doing so may cause accidents and personal injury.**
- **Place the cabinet where room temperature is between 5°C and 35°C. If the temperature exceeds or falls below the recommended temperature range, this may damage the cabinet.**
- **Be careful when handling glass parts. Failing to do so may cause accidents and injury.**
- **Absolutely do not climb onto the cabinet to attach parts. Doing so may result in accidents and injury.**

Operation

■ Before Operation



Danger

- **Be careful to see that the "Warning" and "Caution" stickers affixed to the cabinet are placed where they can be read, are sufficiently illuminated, and free of dirt, etc. Also, make sure they are not hidden by other cabinets, etc.**
- **If labels are considerably dirty, torn, etc., replace them with new labels. (To request new labels, contact SNK or any authorized dealer.)**
- **Do not unplug the cabinet if your hands are wet. This may cause accidents such as electric shock.**
- **Do not damage, modify, or place heavy or hot objects on or near the power cord. If the cord is damaged, this may cause accidents involving fire and electric shock.**
- **If the power cord is damaged (the wires are exposed, cut, etc.), contact the SNK Corporation or any authorized dealer for replacement. Failing to replace the cord may cause fire, electric shock, and short circuits.**

- Check the stability of the cabinet (the cabinet is stabilized with the adjusters) in the installation area. There may be a danger of accidents from the cabinet tipping over or moving.



- Place the cabinet where it can be operated safely. This is necessary to avoid accidents and personal injury.
- Be careful when handling glass parts. This is necessary to prevent accidents and injuries.
- When unused for long periods, turn the cabinet off and unplug it for safety.

Operation

■ During Operation



- Should any of the following occur, immediately turn the power switch off and unplug the cabinet. Continued use in any of these circumstances may result in accidents such as fire and electric shock.
 - When the cabinet breaks down.
 - When water or foreign matter enters the cabinet.
 - When the cabinet is damaged.
 - When smoke, unusual odors, or strange noises emanate from the cabinet.
- Do not let anyone climb or lean on the cabinet. This may result in accidents and injuries.
- To avoid accidents, stop customers from performing any of the actions that are forbidden by the warning stickers affixed to the cabinet.



- Do not insert fingers or foreign objects into the cabinet's openings and cracks. This may cause accidents and personal injury.
- Stop customers from placing packages and drinks on the cabinet. This is necessary to avoid damage to the cabinet and accidents from falling objects.
- Immediately stop violent behavior, such as hitting or kicking the cabinet. This is necessary to prevent accidents and breakdowns.

Maintenance



- When performing maintenance on the cabinet, be sure to do so after the power is turned off. Doing so when the power is not turned off may result in electric shock.
- Absolutely do not try to copy or modify this cabinet. Doing so may cause fire and electric shock.
- Do not use parts in this cabinet other than those specified by the SNK Corporation. Doing so may cause accidents and breakdowns.
- Make sure all connectors in the cabinet are connected tightly. Loose and partial or incorrect connections may cause accidents such as fire and electric shock.



- **Do not apply volatile liquid cleaners like benzene, alcohol, thinner, and insecticides to the cabinet. This may cause paint and stickers to peel and ruin the luster of the cabinet's finish.**

Disposal



- **When disposing of this cabinet, make sure you do so according to the laws of your area concerning collection, shipping, and disposal.**
- **When disposing of this cabinet through the agency of another, be sure to do this through an agency qualified in the collection, shipping, and disposal of products of this kind.**

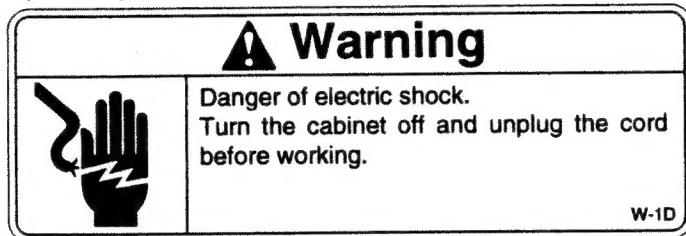
“WARNING”, “CAUTION” LABEL STICKERS/ SPECIFICATION DISPLAY PLATES

■ WARNING Label Stickers

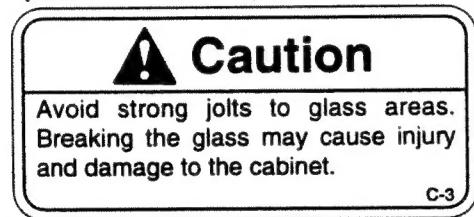
In this cabinet, places that are designated as dangerous are labelled with stickers affixed to the cabinet to warn others of possible danger.

These stickers are for warning maintenance and service technicians to avoid danger, and to protect customers against accidents.

① W-1D
(Warning seal, No. 1 side, small)



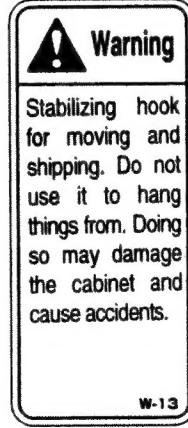
③ C-3
(Caution seal, No. 3)



② W-2B
(Warning seal, No. 2 side, small)



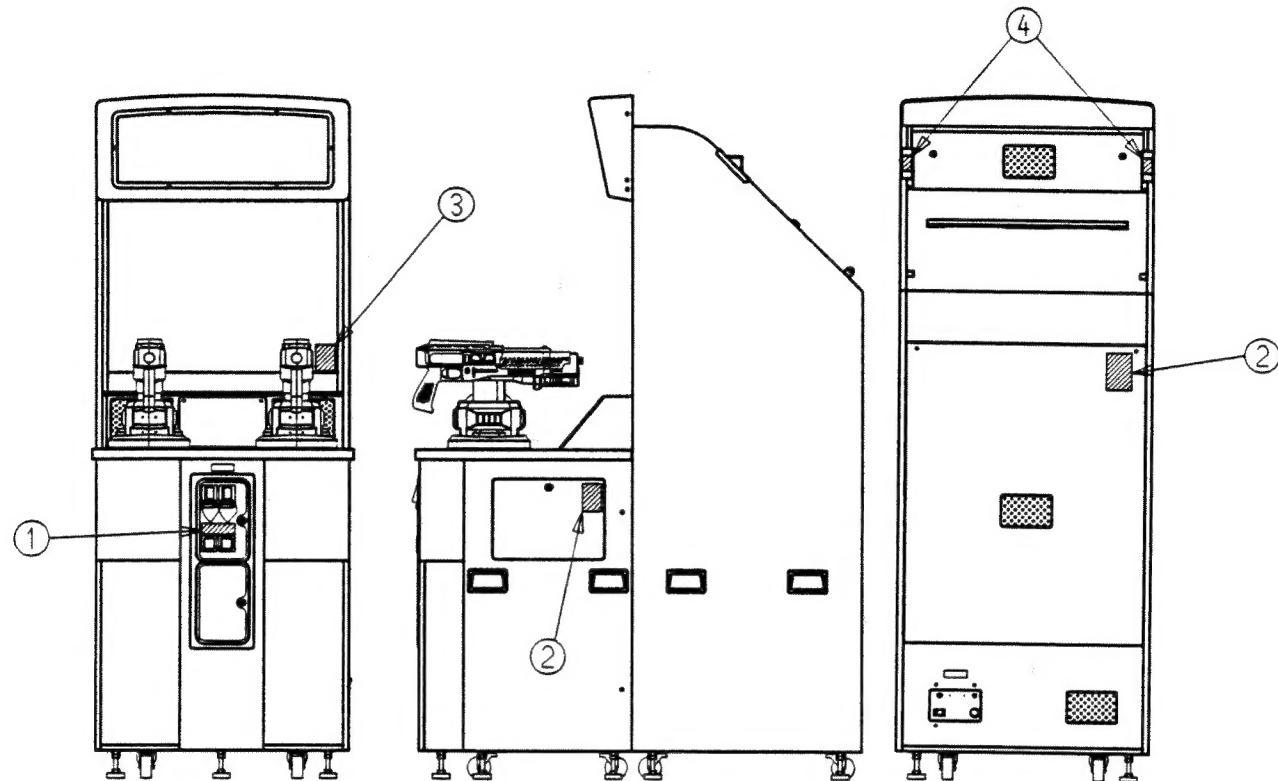
④ W-13
(Warning seal, No. 13)



■ Specification Display

A serial number plate and electrical specifications plate are affixed to the cabinet. When inquiring about repair requests, etc., after checking the displayed serial number and product name, contact the institution listed on the back cover of this user's manual.

■ **“WARNING”/“CAUTION” Label Sticker and Specification Display Plate Locations**



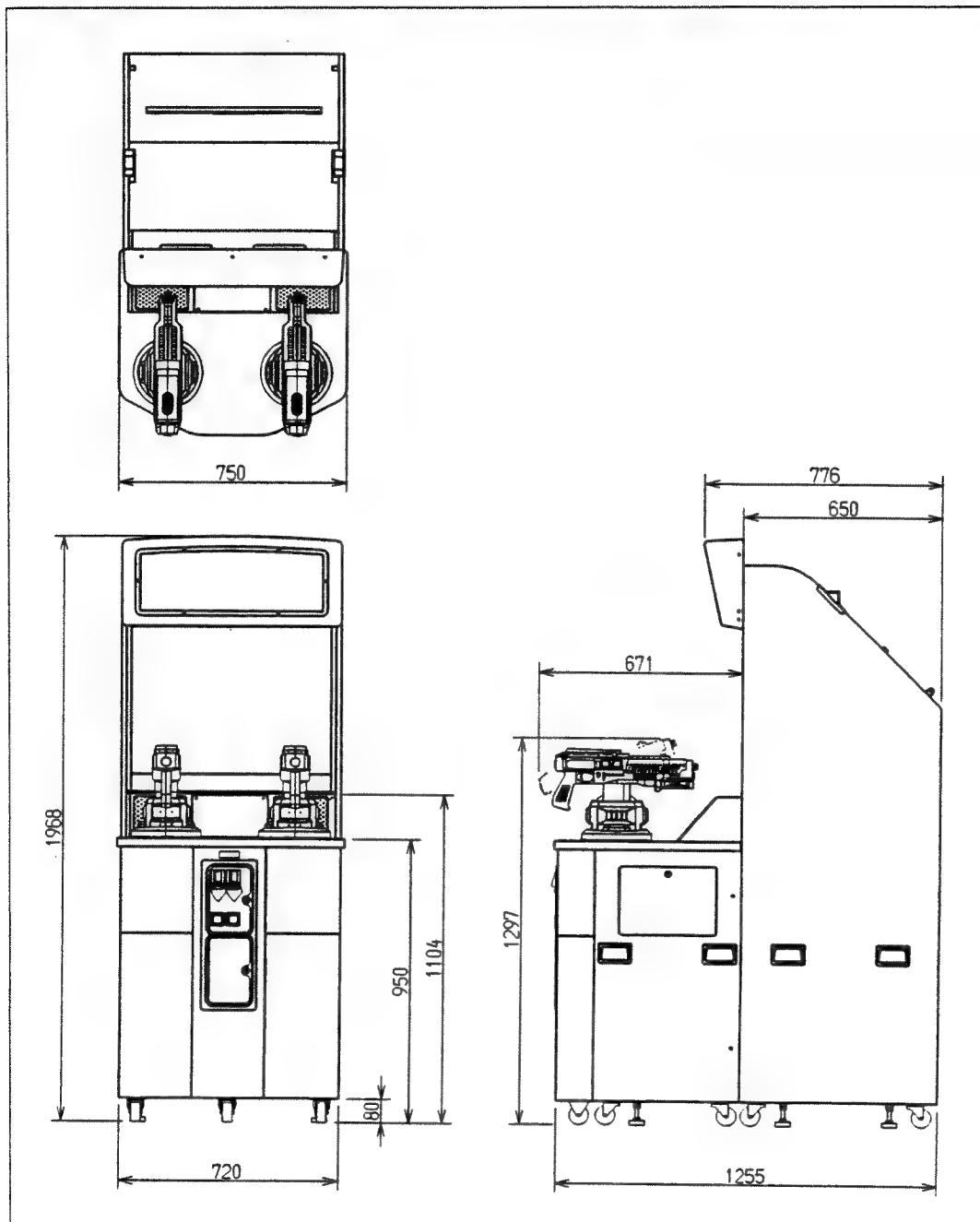
BEAST BUSTERSTM

SECOND NIGHTMARETM

Index

TO OUR CUSTOMERS	1
SAFETY PRECAUTIONS	2
"WARNING", "CAUTION" LABEL STICKERS/ SPECIFICATION DISPLAY PLATES	6
INDEX	8
SPECIFICATIONS	9
PACKING CHECK	10
PART NAMES	11
SWITCH, TERMINAL LOCATIONS	13
MOVING, SHIPPING	15
INSTALLATION	16
OPERATION	21
MAINTENANCE	40
DISPOSAL	49
PARTS LIST	50
WIRING DIAGRAMS	End Insert

Specifications



Model Number: Monitor section, BB2-SM; Control section, BB2-SC-K

1. Power supply: AC220 -240V (50/60Hz)
2. Power consumption: 240W
3. Dimensions:
 - 750 mm (W) x 1,309 mm (D) x 1,968 mm (H) Completely assembled
 - 720 mm (W) x 776 mm (D) x 1,968 mm (H) Monitor section
 - 750 mm (W) x 671 mm (D) x 1,297 mm (H) Control section
4. Total weight: 193 kg (Monitor section: 117 kg; Control section: 76 kg)
5. Fuse standard: 6A (anti-surge type)
6. Operation condition: Indoor use only

*Be aware that the items listed herein are subject to change without prior notice for product improvement.

Packing Check

The cabinet is packed in the method below:

Number of packages: 2 boxes

Package contents: BEAST BUSTERS SECOND NIGHTMARE, monitor section

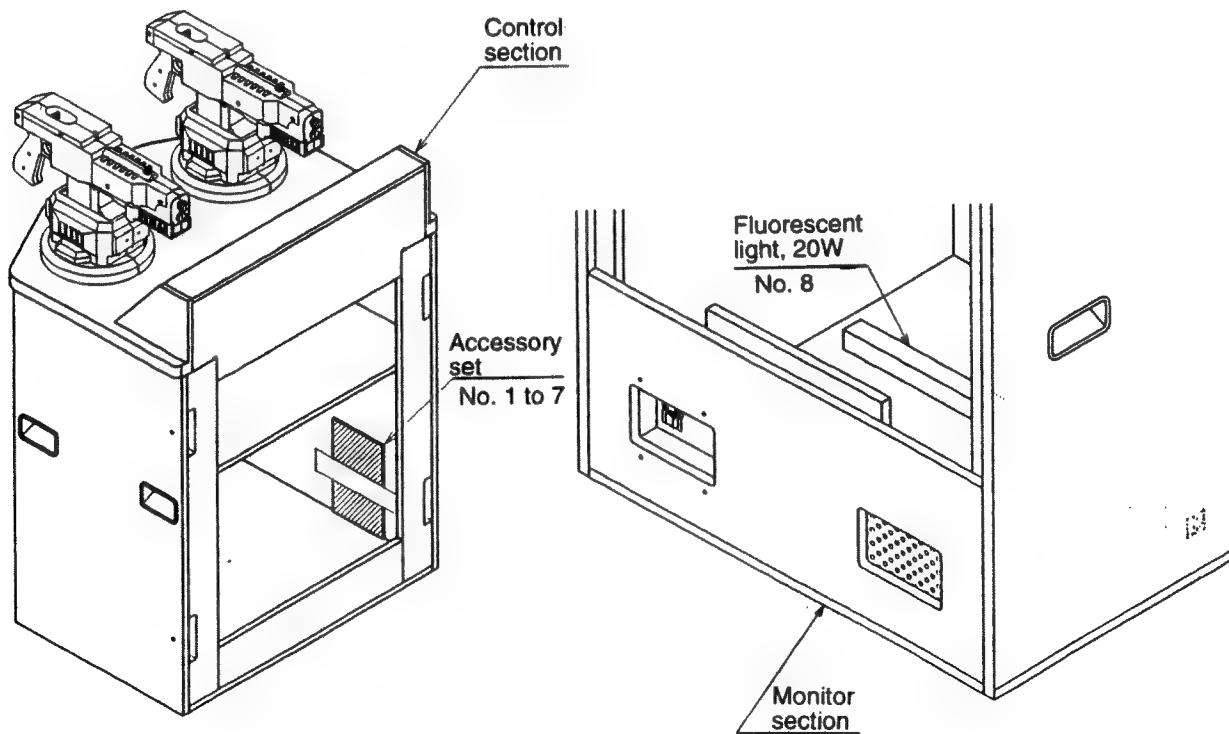
BEAST BUSTERS SECOND NIGHTMARE, control section

*Because they will be needed again when moving the cabinet, be sure to save all packing materials such as the cardboard boxes, etc.

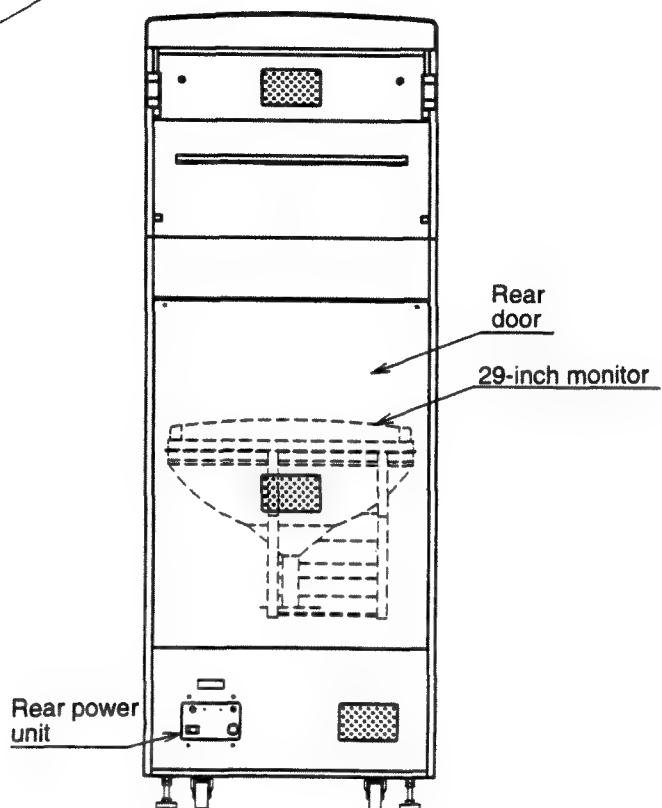
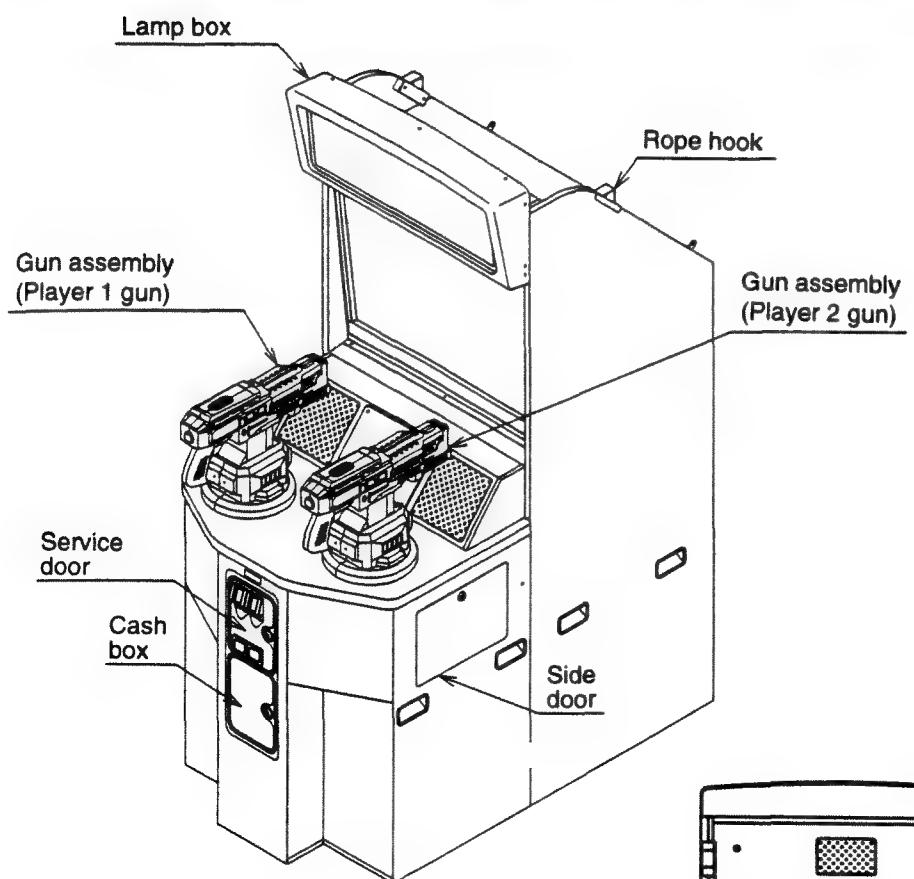
■ Accessories

Accessories are placed in the locations listed below. Remove these and check to see all the parts listed below are included in the packing.

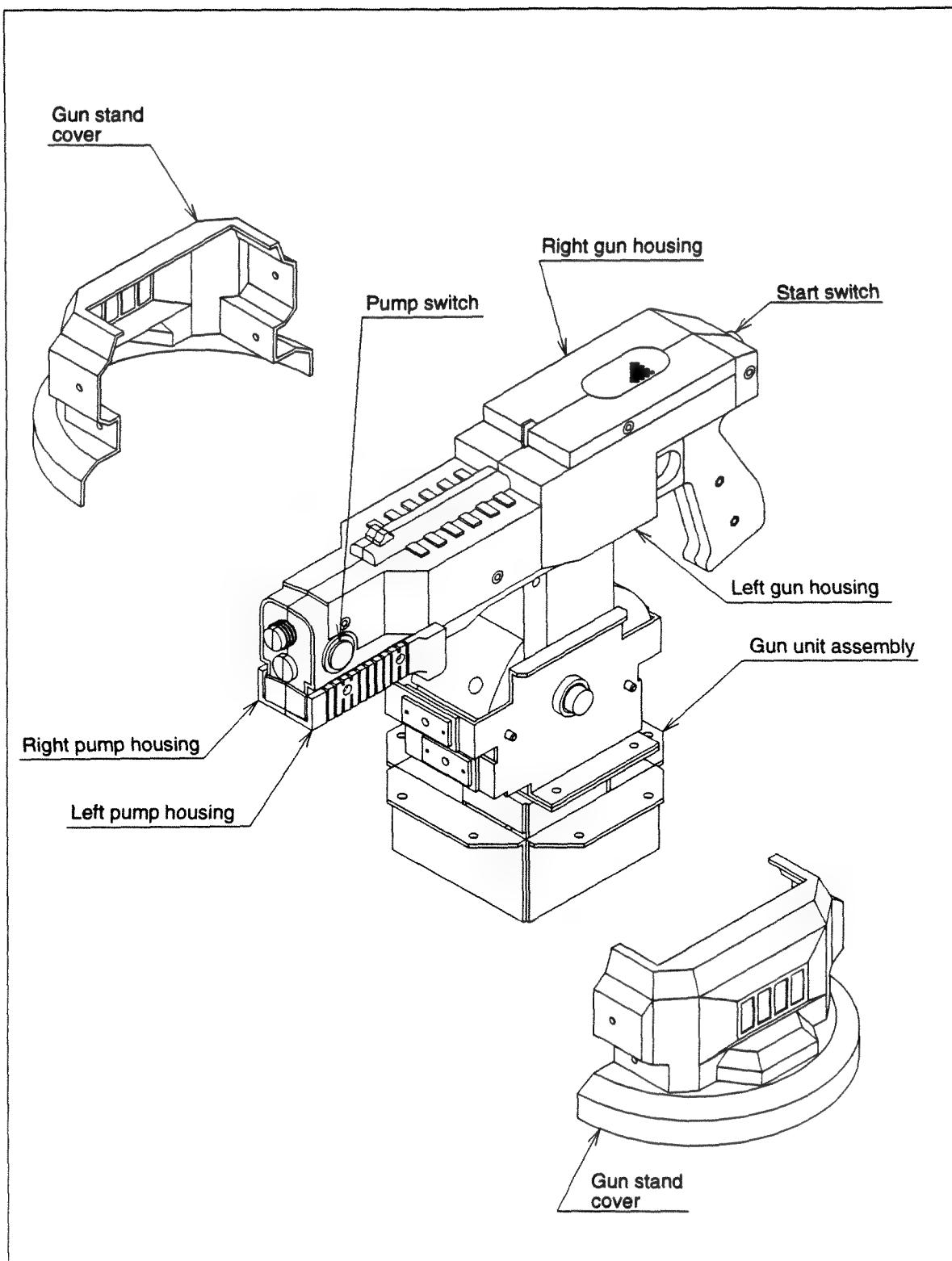
No.	Part Name	Part Code	Qty.	Notes
1	User's manual		1	
2	Master keys	4315533	2	
3	Cash box keys	43233	2	
4	Monitor adjustment screwdriver		1	
5	M5 × 40 truss screws	81530540	4	
6	M5 flat fixtures	8513050	4	5.6 × 16 × 1.6 t
7	2.5 mm hexagonal wrench	881003	1	
8	Fluorescent light bulb, 20W	301204	1	



Part Names



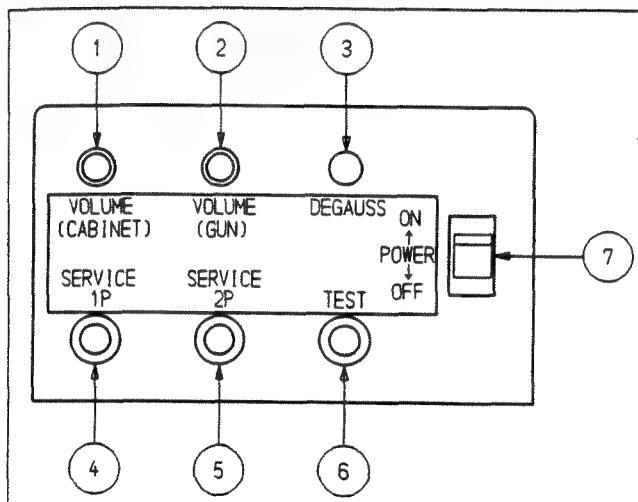
■ Gun assembly diagram



Switch Terminal Locations

■ Control section

The switches and terminals listed below are located behind the service door.



① Volume (Cabinet)

Adjusts the volume for the cabinet speaker.

② Volume (Gun)

Adjusts the volume for the speaker in the upper gun section.

③ Degaussing switch

Used to clear static electricity build-up from the monitor.

④ Service switch (Player 1)

A service credit switch for the player 1 side.

⑤ Service switch (Player 2)

A service credit switch for the player 2 side.

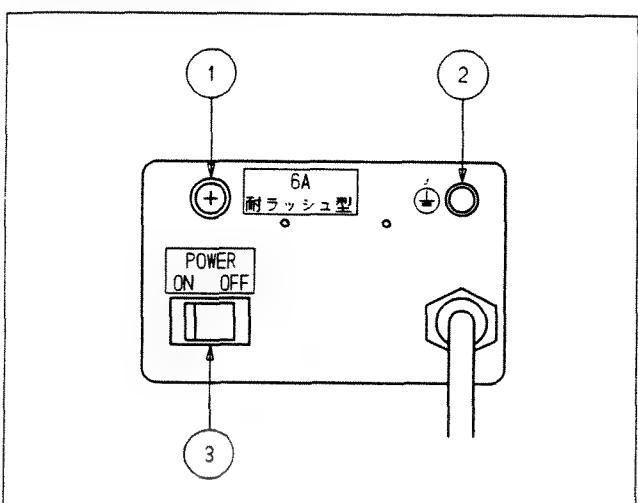
⑥ Test switch

Switch to enter Test Mode.

⑦ Front power switch

■ Monitor section

The switches and terminals listed below are located in the rear power unit section.



① Fuse holder

Holds the fuse (6 ampere, anti-surge type).

② Ground terminal

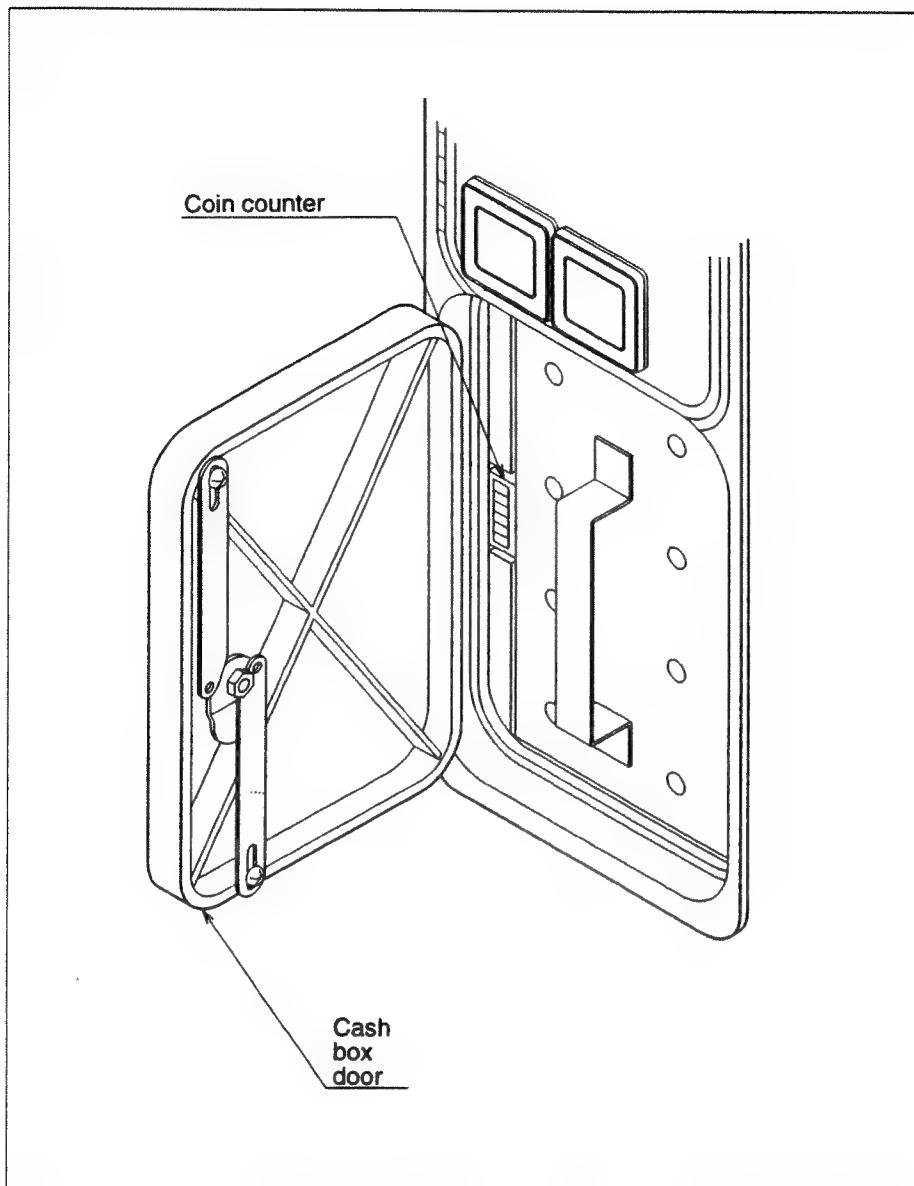
Connects the ground cable.

③ Rear power switch.

*If the front power switch and the rear power switch are not both switched on, the cabinet will not operate.

■ Control section

The coin counter is located inside the cash box door.



■ Safety Precautions



- Before moving the cabinet, unplug the power cord. This is necessary to avoid accidents and damage to the cabinet.
- Do not damage the power cord and ground cable when moving the cabinet. This may cause accidents involving fire and electric shock as well as damage to the cabinet.
- To prevent accidents when moving and shipping the cabinet, be sure to do so with an appropriate number of people to safely handle the cabinet and be very careful of surrounding conditions.
- When moving the cabinet, be careful for safety around you and create a path sufficient to move the cabinet.
- Do not damage the wiring. Doing so may cause fires and electric shock.
- Do not use the rope hook in back of the cabinet to hook up and lift it. Doing so may cause accidents and personal injury.



- Do not move the cabinet with the adjusters lowered. It may cause injury and accidents.
- Do not touch areas other than those indicated. This may cause accidents and personal injury.
- When moving the cabinet, support it by grabbing the handles at the side of the cabinet. Especially when moving or carrying the cabinet over graded surfaces, be sure to lift the cabinet by the handles. This is necessary to prevent accidents and personal injury.
- Be careful when handling glass parts. Failing to do so may cause accidents and injury.
- When the cabinet is tilted, do not support the glass sides. Doing so may cause accidents and personal injury.
- When moving and shipping the cabinet, avoid severe jolts to the cabinet. This may cause breakage and damage to the cabinet.
- When moving this cabinet, do not hold it by the gun assembly. In so doing, there is the danger of damage to the gun assembly and the attached sections.
- When shipping the cabinet, secure the gun assembly with the packing materials. Failing to do so may physically damage the cabinet and cause breakdowns.
- When transporting the cabinet on top of vehicles, use the rope hook on the cabinet's upper rear section and secure tightly.

■ Safety Precautions

- **Install the cabinet following the explanations and procedures in this manual. Failing to do so may create the danger of electric shock and personal injury.**
- **Be sure to connect the ground cord. If the cabinet is not properly grounded, it may cause an electric shock in the event of a short circuit.**
- **This cabinet is for indoor-use only. Under no circumstances should it be placed outdoors or in the locations listed below. So doing may cause damage to the cabinet and accidents.**
 - Indoor pools, areas near a shower, and other locations where humidity is high.
 - In areas exposed to direct sunlight.
 - In areas that are excessively hot, like next to a heater. In areas around dangerous materials.
 - In places that are excessively dusty.
 - In areas prone to leaking and flooding.
 - Near ventilators and areas of severe temperature extremes.
 - On inclines, areas subject to severe jolts, and other unstable locations.
 - Near fire fighting facilities and emergency exits.
- **Do not block the ventilation openings in the rear of the cabinet. Doing so will increase the internal temperature of the cabinet and may cause fire and damage to the cabinet.**
- **Do not place containers with liquids (drinks, etc.) or small metal objects on the machine. Should liquids or conductive materials fall into the machine, it may result in fire and electric shock.**
- **Be sure to use an outlet rated at AC220V – 240V and insert the plug into a specialized outlet. If other high-capacity products (air conditioners and large-size cabinets, etc.) are used on the same power line, this may result in accidents such involving fire and electric shock as well as damage to the cabinet.**
- **Do not damage, modify, or place heavy objects on the cord. Also, do not place the cord near heated objects. Doing so may break the cord and cause fire and electric shock.**



Danger

- **When installing the cabinet, be sure to adjust the nine adjusters on the bottom of the cabinet to bring it level. Failing to do so may cause accidents and personal injury should the cabinet tip over or fall. Also it may cause the coin selection function to malfunction.**
- **Do not place the power cord in areas where people can step on or kick it. Doing so may cause accidents and personal injury.**
- **Place the cabinet where room temperature is between 5°C and 35°C. If the temperature exceeds or falls below the recommended temperature range, this may damage the cabinet.**
- **Be careful when handling glass parts. Failing to do so may cause accidents and injury.**
- **Absolutely do not climb onto the cabinet to attach parts. Doing so may result in accidents and injury.**



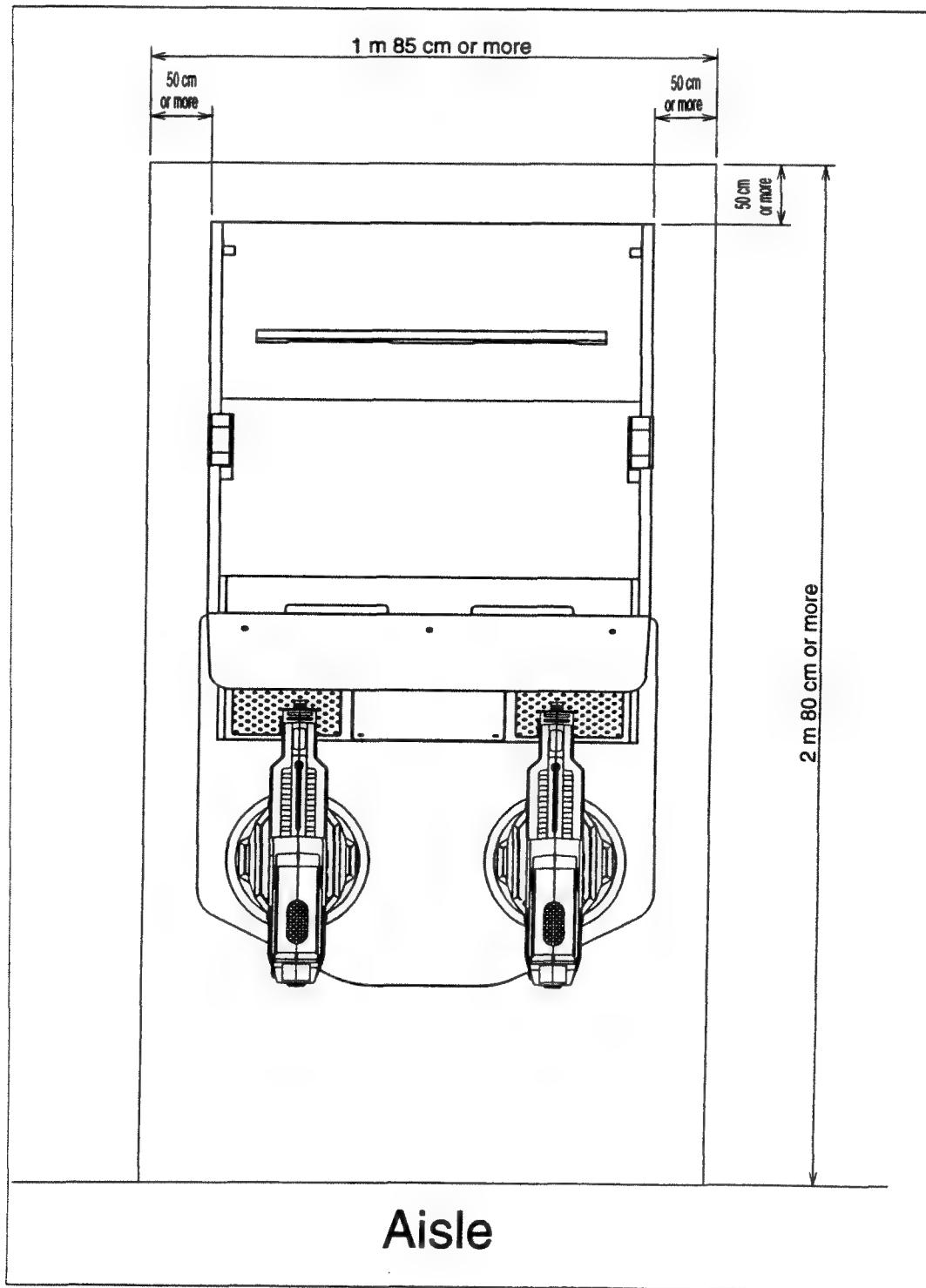
Warning

■ Installation Conditions

The area necessary to operate and maintain the cabinet is listed below.

- **185 cm (W) x 280 cm (D)**

* The height of the ceiling should be more than 2 meters.



■ Preparing for Installation



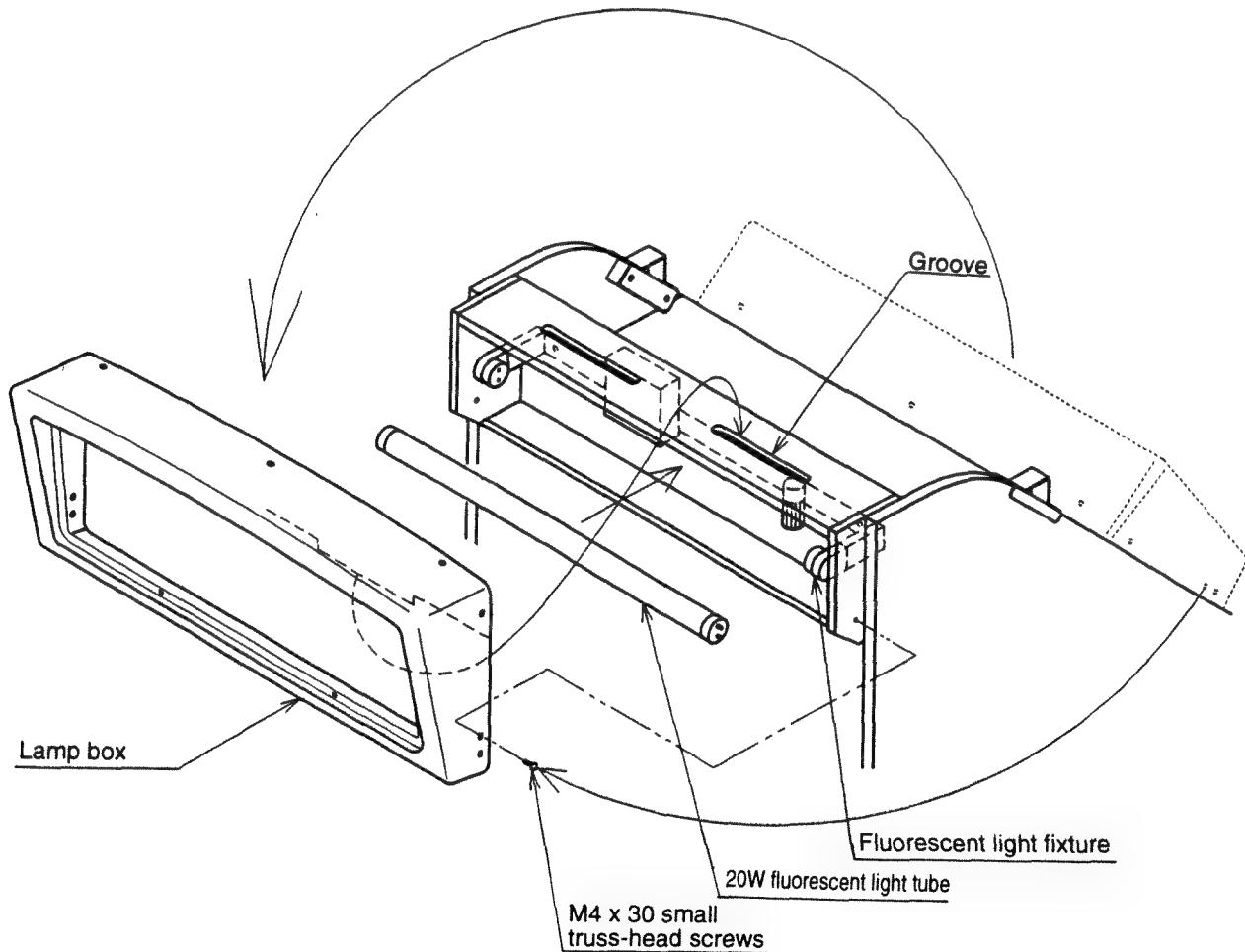
Use a step ladder for installation. Failing to do so may cause accidents and personal injury.

Before beginning installation procedures, prepare the items listed below.

- Accessories..... 2 master keys, 4 M5 × 50 small truss-head screws, 4 M5, flat-head screws, a 20W fluorescent light tube.
- Tools Phillips screwdriver, monkey wrench

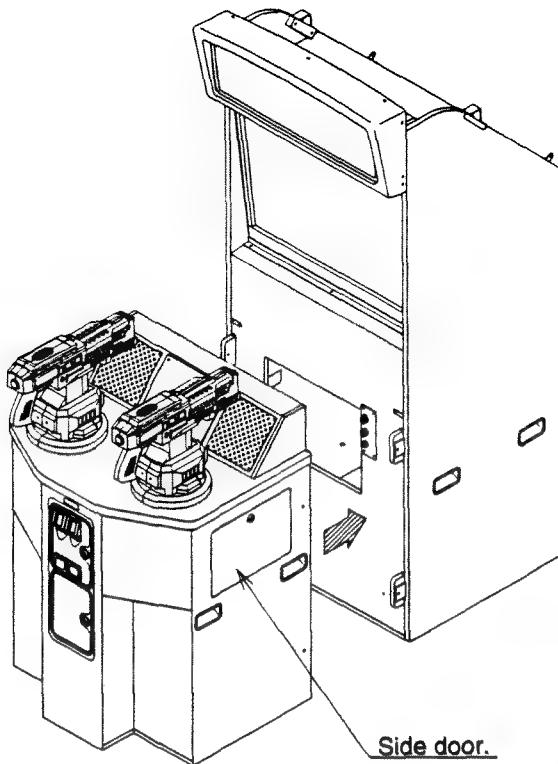
■ Installation Procedures

● Attaching the Lamp Box

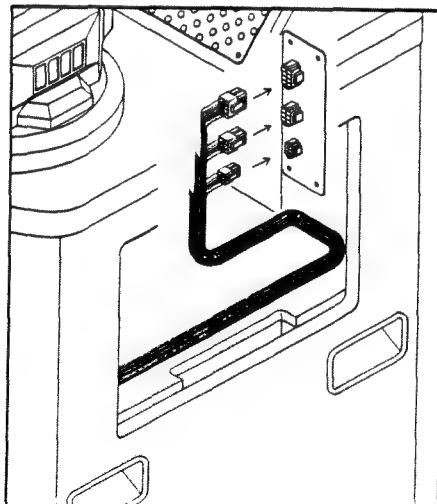
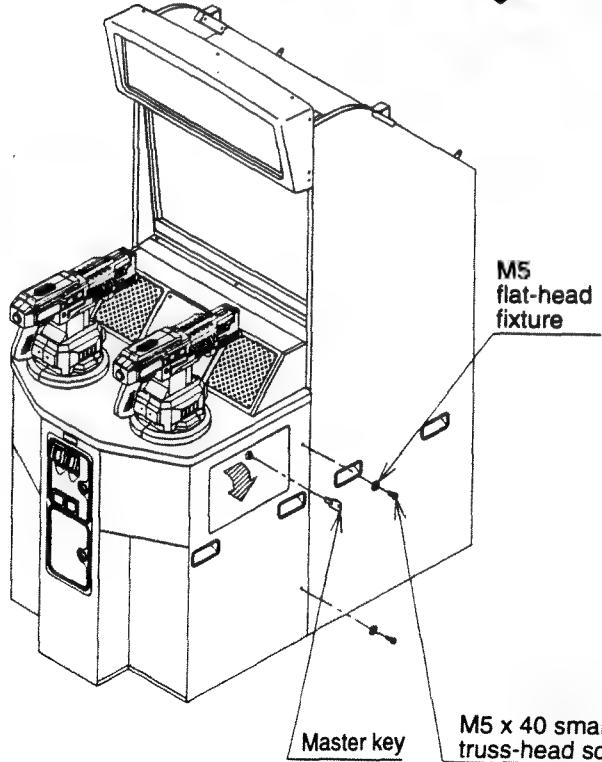


1. Insert the 20W fluorescent light tube into the fluorescent light holder.
2. Remove the two M4 × 30 small truss-head screws and then remove the lamp box from the rear of the monitor section as shown in the diagram.
3. Attach the lamp box to the front section of the monitor section shown in the diagram above with the two M4 × 20 small truss-head screws, previously removed to detach the lamp box.

● Connecting the Control Section and Monitor Section

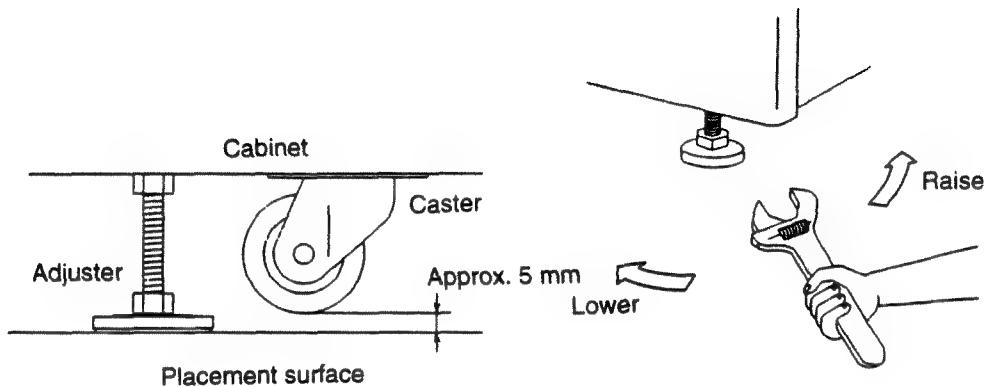


1. Connect the monitor and control sections together.
2. As shown in the diagram, use the four M5 flat-head fixtures and M5 × 40 small truss-head screws to secure the monitor section to the control section. (There are two attachment holes on the right and left sides.)
3. Use the master keys to open the side door.
4. Connect all three connectors inside the side door.
5. Shut the side door.



● Placing the Cabinet

Lower the nine adjusters at the bottom of the cabinet to the surface. When they are set on the surface, use a monkey wrench to adjust the height of each adjuster and bring the cabinet level (the casters should be about 5 mm off the ground.) When adjustments are completed, tighten the nut and make sure it is secured.



- Make sure the screws are screwed in tightly. If the screws are loose, this may damage sections and cause accidents.
- Be sure to prepare a suitable place where the cabinet can be safely installed and assembled. Failing to do so may cause accidents and personal injury.

■ Safety Precautions for Operating the Cabinet

● Before Operation

To prevent accidents, check the following points before operating the cabinet.



Danger

- Be careful to see that the "Warning" and "Caution" stickers affixed to the cabinet are placed where they can be read, are sufficiently illuminated, and free of dirt, etc. Also, make sure they are not hidden by other cabinets, etc.
- If labels are considerably dirty, torn, etc., replace them with new labels. (To request new labels, contact SNK or any authorized dealer.)
- Do not unplug the cabinet if your hands are wet. This may cause accidents such as electric shock.
- Do not damage, modify, or place heavy or hot objects on or near the power cord. If the cord is damaged, this may cause accidents involving fire and electric shock.
- If the power cord is damaged (the wires are exposed, cut, etc.), contact the SNK Corporation or any authorized dealer for replacement. Failing to replace the cord may cause fire, electric shock, and short circuits.
- Check the stability of the cabinet (the cabinet is stabilized with the adjusters) in the installation area. There may be a danger of accidents from the cabinet tipping over or moving.



Warning

- Place the cabinet where it can be operated safely. This is necessary to avoid accidents and personal injury.
- Be careful when handling glass parts. This is necessary to prevent accidents and injuries.
- When unused for long periods, turn the cabinet off and unplug it for safety.

● During Operation



Danger

- Should any of the following occur, immediately turn the power switch off and unplug the cabinet. Continued use in any of these circumstances may result in accidents such as fire and electric shock.
 - When the cabinet breaks down.
 - When the cabinet is damaged.
 - When water or foreign matter enters the cabinet.
 - When smoke, unusual odors, or strange noises emanate from the cabinet.
- Do not let anyone climb or lean on the cabinet. This may result in accidents and injuries.
- To avoid accidents, stop customers from performing any of the actions that are forbidden by the warning stickers affixed to the cabinet.



Warning

- Do not insert fingers or foreign objects into the cabinet's openings and cracks. This may cause accidents and personal injury.
- Stop customers from placing packages and drinks on the cabinet. This is necessary to avoid damage to the cabinet and accidents from falling objects.
- Immediately stop violent behavior, such as hitting or kicking the cabinet. This is necessary to prevent accidents and breakdowns.

■ Turning the Cabinet on and Operation Checks

● Before turning the cabinet on

- Use a separate outlet for the cabinet.
- Use a single-phase, 220V to 240V AC indoor outlet with 7 amperes or more.
* The maximum current should total 3 amperes (AC220 to 240V).
- When using an extension cord with this cabinet, use a cord that is rated at 12 amperes or more.

● Turning the Cabinet on

1. Check to see that both power switches inside the service door and the rear power source section are switched off.
2. Plug the AC cord into the outlet.
3. Attach a ground cable.
4. Turn the power switches inside the service door and in the rear power source section on.



Danger

- **Be sure to attach a ground cable.**

If a ground cable is not attached, there may be danger of electric shock if there is a short circuit.



Warning

- **If the power switches in the two locations are not both switched on, the cabinet will not operate.**

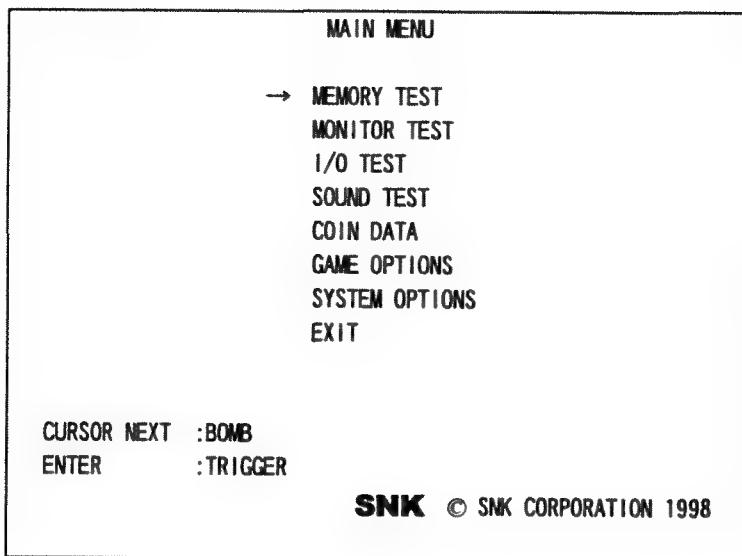
● Operation Checks

1. The fluorescent light and coin insert slot lamp lights up.
2. After turning on the cabinet, the RAM TEST begins automatically. If all items show the "OK" message, the next screen will appear.
3. After the cross-hatch screen is displayed for a few seconds, the game screen will appear.

● Test Mode

Press the Test button inside the service door to begin the Test Mode.

When the Test Mode begins, the menu screen shown below will appear. Select the necessary item and make settings and adjustments as needed. The contents of settings and adjustments are shown below.



[Contents]

- **MEMORY TEST** Checks the read/write functions of RAM devices.
- **MONITOR TEST** A screen display for adjusting the monitor.
- **I/O TEST** Checks the various input and output devices.
- **SOUND TEST** Test of audio output devices.
- **COIN DATA** Calculates coin and play totals/data.
- **GAME OPTIONS** Sets game difficulty, etc.
- **SYSTEM OPTIONS** Sets cabinet settings.

[Basic Operation Descriptions]

The operations listed below are fundamentally done using the Player 1 gun only.

1. In the lower left of each screen, an operations description is displayed. Follow this display to change the setting values.

CURSOR NEXT: Each time the BOMB switch is pressed, the cursor will move to the next item.

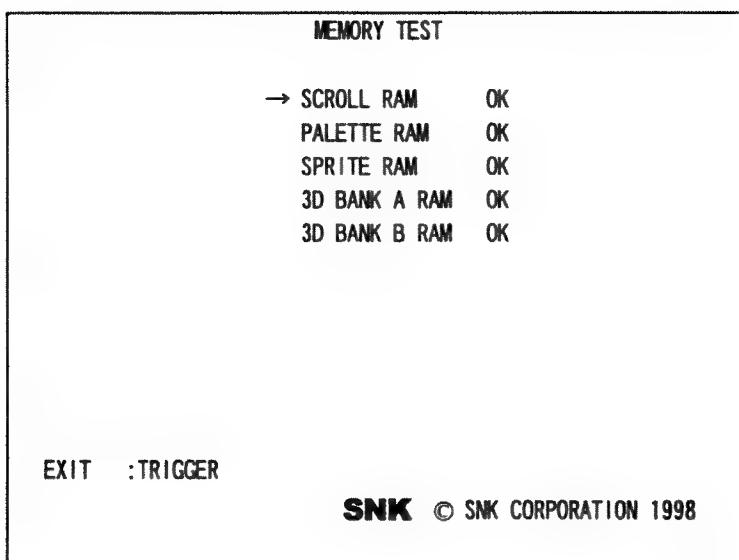
ENTER: Pull the trigger to call up the setting item menu to which the cursor has been matched.

CHANGE: Pull the trigger or push the Start switch to change setting items.

2. Select EXIT in each setting item and pull the trigger to return to the previous screen.

3. Select EXIT on the MAIN MENU screen and pull the trigger to end the Test Mode and reactivate the game.

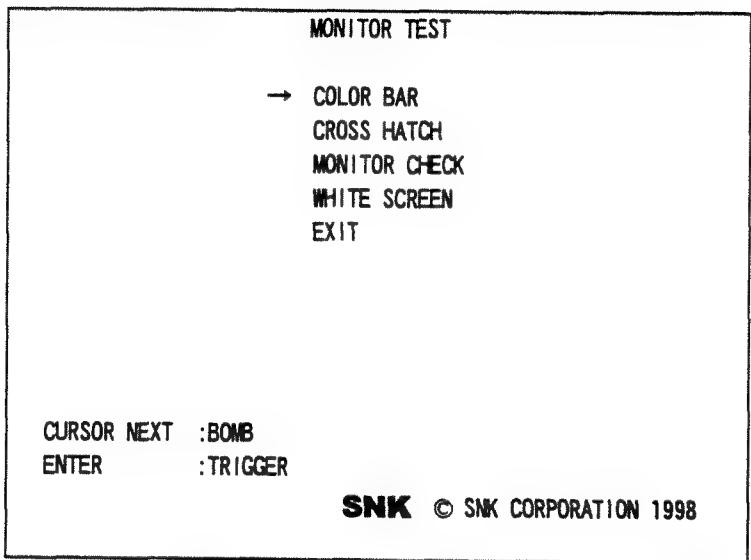
■ 1 MEMORY TEST



[Procedures]

- Automatically searches the memory and if there is nothing wrong, an "OK" message appears. If something is wrong, the "NG" message will appear.
- When the "NG" message appears, quickly turn the cabinet off and contact the SNK service center.
- Pull the trigger to return to the "MAIN MENU."

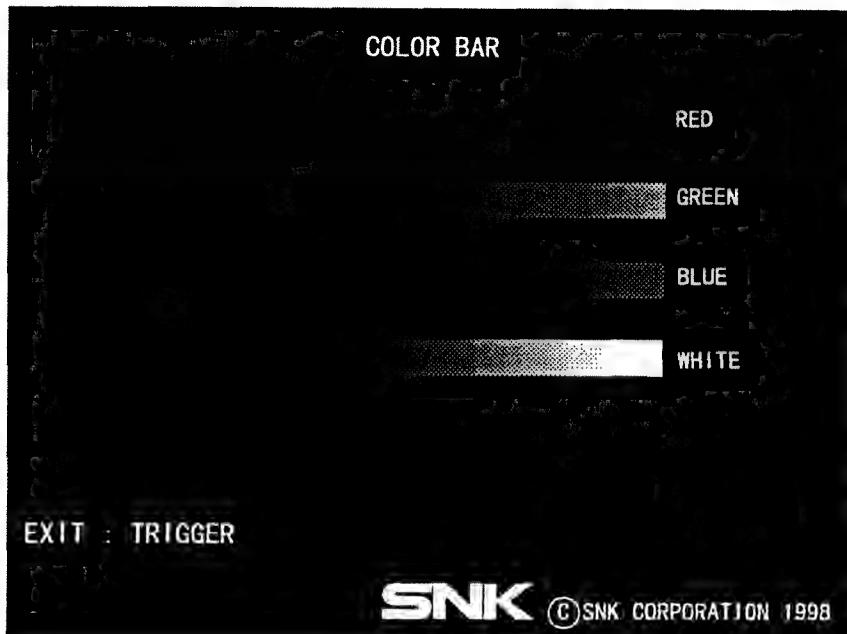
■ 2 MONITOR TEST



[Function]

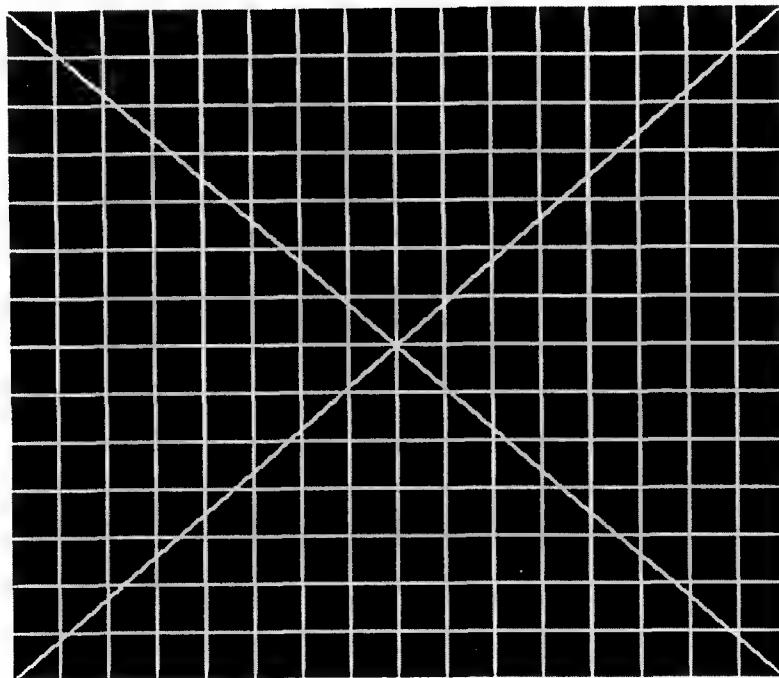
The test pattern for monitor adjustment is displayed. Four types of screens are displayed: a color bar for color adjustment and correction, a cross-hatch display for correcting image size and distortion, a screen for monitor checks, and a white screen.

2. 1 COLOR BAR



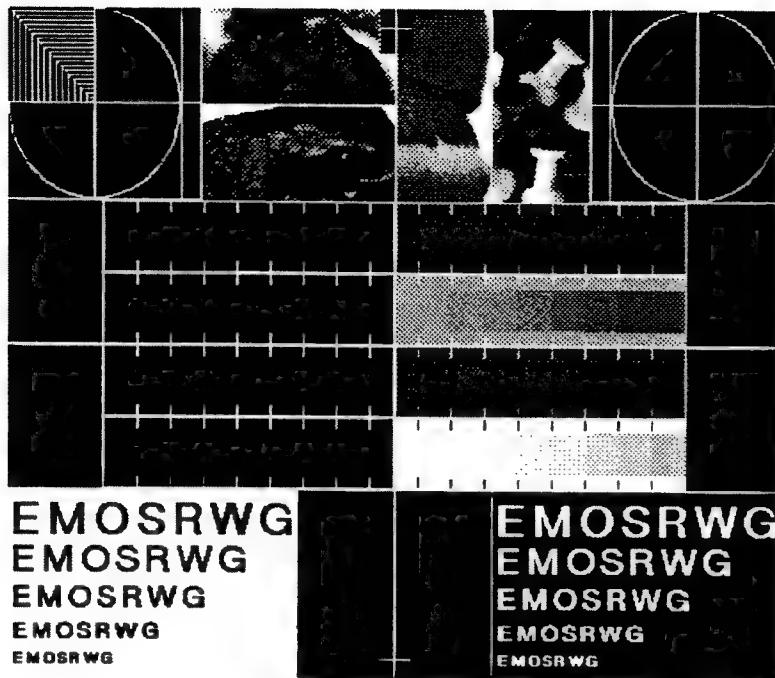
- *Pull the trigger to return to the "MONITOR TEST" menu screen.

2. 2 CROSS HATCH



- Pull the trigger to return to the "MONITOR TEST" menu screen.

2. 3 MONITOR CHECK



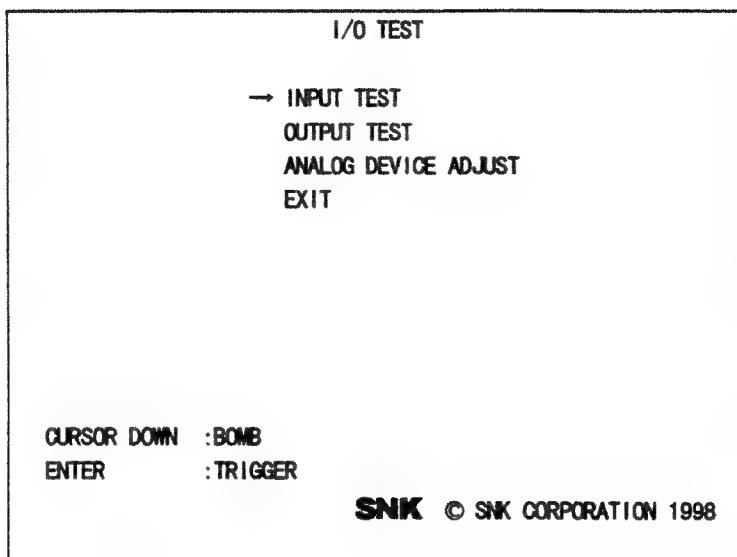
Based on the sample image, color divergences, rasters, display scales, brightness, contrast, possible sizes for stabilized displays, and image centers are checked.

- Pull the trigger to return to the "MONITOR TEST" menu screen.

2. 4 WHITE SCREEN

- Pull the trigger to return to the "MONITOR TEST" menu screen.

■ 3 I/O TEST



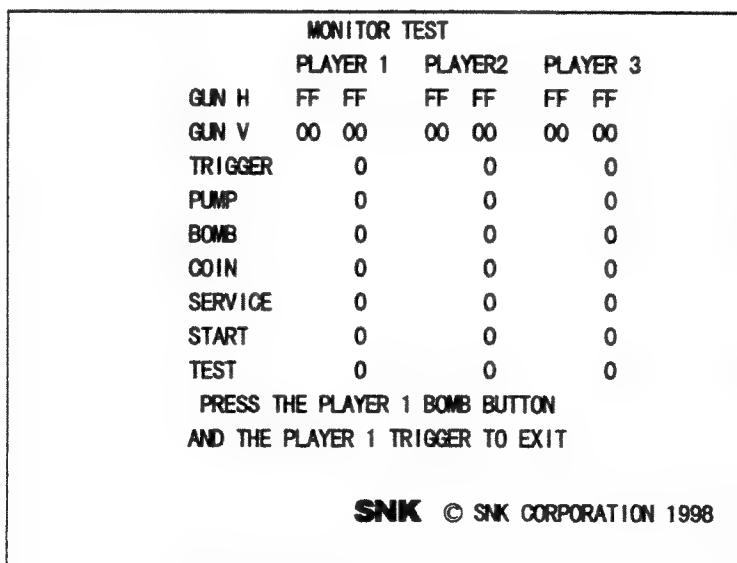
[Function]

Checks input and output devices, and allows adjustment of guns.

3. 1 INPUT TEST

[Check Contents]

- Checks analog input of GUN H and GUN V.
- Each input test is displayed successively on the screen.
- The "PLAYER 3" column is not used in this cabinet.

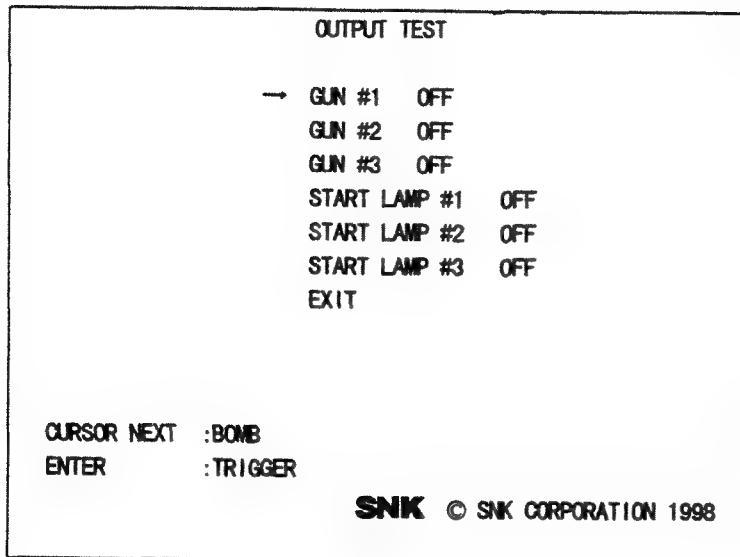


- Pull the trigger while pushing down on the bomb switch to return to the I/O Test Menu screen.

3. 2 OUTPUT TEST

[Check Contents]

- Tests gun vibration and illumination of the Start lamp.
- All operations are done with the Player 1 gun.
- "GUN #3" and "START LAMP #3" setting items are not used in this cabinet.



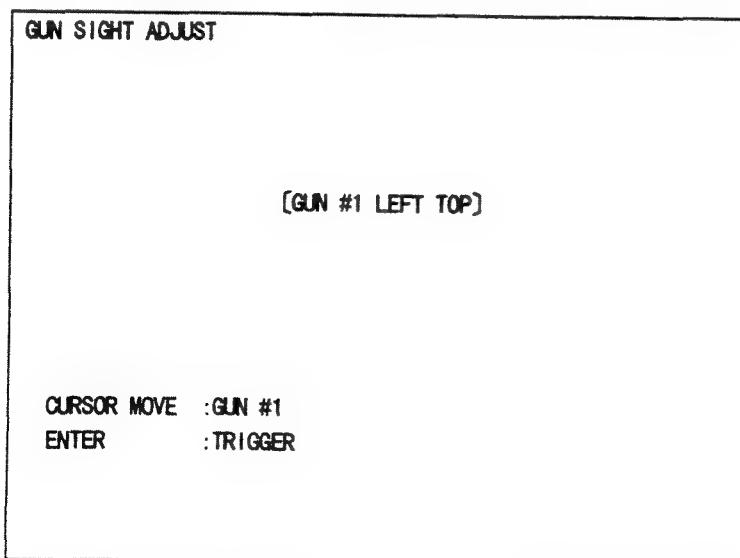
3. 3 ANALOG DEVICE ADJUST

[Contents]

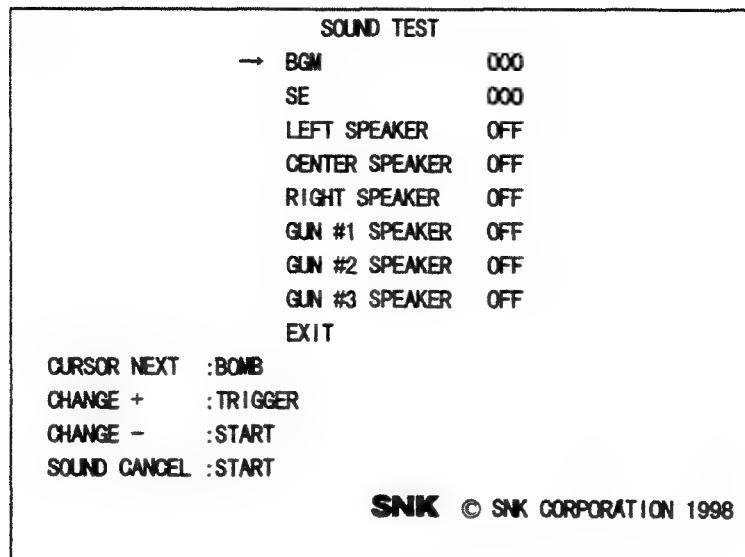
Sets the analog standard values for guns.

[Setting Procedure]

1. Move the Player 1 gun as far to the upper left as possible and pull the trigger in that position.
2. Move the Player 1 gun as far to the lower right as possible and pull the trigger in that position.
3. Move the Player 2 gun as far to the upper left as possible and pull the trigger in that position.
4. Move the Player 2 gun as far to the lower right as possible and pull the trigger in that position.



■ 4 SOUND TEST



[Function]

Tests music (BGM) and sound effects (SE).

4. 1 BGM (Background Music)

- When selected, the BGM will begin to play. (All sounds playing beforehand will be cancelled out.)
- BGM will play for 10 seconds only after this item has been selected.
- It's possible to cancel the BGM test while music is playing by pushing the Start button.

4. 2 SE (Sound Effects)

- When selected, the SE will begin to play (All sounds playing beforehand will be cancelled out.)
- These will play for 10 seconds only after this item has been selected.
- It's possible to cancel the SE test while sound effects are playing by pushing the Start button.

4. 3 LEFT SPEAKER

- Plays sound through the left speaker (facing the front of the machine).
- It's possible to cancel the test while the speaker is tested by pushing the Start switch.

4. 4 CENTER SPEAKER

- Plays sound through the left and right speakers.
- It's possible to cancel the test while the speaker is tested by pushing the Start switch.

4. 5 RIGHT SPEAKER

- Plays sound through the right speaker (facing the front of the machine).
- It's possible to cancel the test while the speaker is tested by pushing the Start switch.

4. 6 GUN #1 SPEAKER

- Plays sound through the Player 1 gun's speaker.
- It's possible to cancel the test while the speaker is tested by pushing the Start switch.

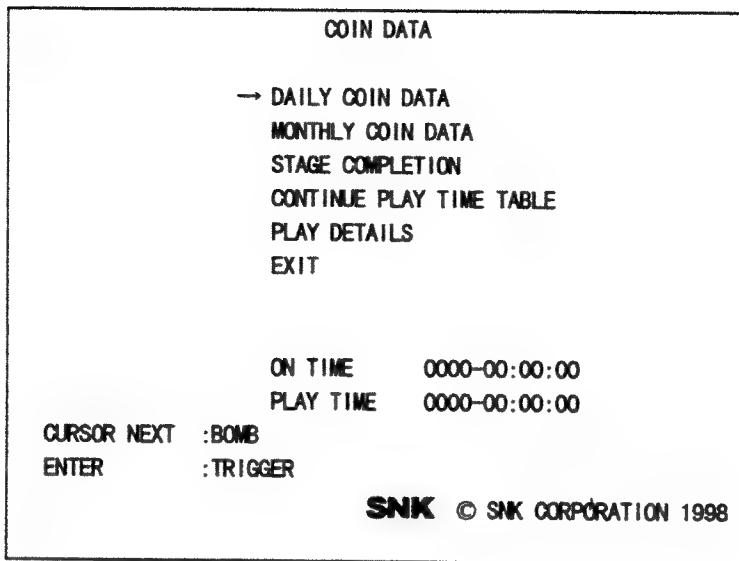
4. 7 GUN #2 SPEAKER

- Plays sound through the Player 2 gun's speaker.
- It's possible to cancel the test while the speaker is tested by pushing the Start switch.

4. 8 GUN #3 SPEAKER

Not used in this cabinet.

■ 5 COIN DATA



[Function]

Displays income total data and play frequency data.

1. The totals for the previous week listed by date
2. The totals for the previous year listed by month
3. Stage completion frequency totals
4. Play time distribution totals
5. Play data details display

- Total operation time (ON TIME) and total play time (PLAY TIME) is displayed in the lower section of the menu monitor.

5. 1 DAILY COIN DATA

[Function]

One week of daily totals are displayed.

	PLAY	CONT	TIME	PLAYER 1 COIN・SRVC	PLAYER 2 COIN・SRVC	PLAYER 3 COIN・SRVC
05/22 FRI	000	000	00:00	0000/0000	0000/0000	0000/0000
05/23 SAT	000	000	00:00	0000/0000	0000/0000	0000/0000
05/24 SUN	000	000	00:00	0000/0000	0000/0000	0000/0000
05/25 MON	000	000	00:00	0000/0000	0000/0000	0000/0000
05/26 TUE	000	000	00:00	0000/0000	0000/0000	0000/0000
05/27 WED	000	000	00:00	0000/0000	0000/0000	0000/0000
05/28 THU	000	000	00:00	0000/0000	0000/0000	0000/0000

- Pull the trigger to return to the "COIN DATA" menu screen.

5. 2 MONTHLY COIN DATA

[Function]

One year of monthly totals are displayed.

	PLAY	CONT	TIME	PLAYER 1 COIN・SRVC	PLAYER 2 COIN・SRVC	PLAYER 3 COIN・SRVC
97/12 DEC	000	000	00:00	0000/0000	0000/0000	0000/0000
98/01 JAN	000	000	00:00	0000/0000	0000/0000	0000/0000
98/02 FEB	000	000	00:00	0000/0000	0000/0000	0000/0000
98/03 MAR	000	000	00:00	0000/0000	0000/0000	0000/0000
98/04 APR	000	000	00:00	0000/0000	0000/0000	0000/0000
98/05 MAY	000	000	00:00	0000/0000	0000/0000	0000/0000

- Six months of display data are shown simultaneously on a screen.
- Match the cursor to "NEXT" and pull the trigger to proceed to the next screen.
- Match the cursor to "EXIT" and pull the trigger to return to the "COIN DATA" menu screen.

5. 3 STAGE COMPLETION

[Function]

One week of stage completion totals data is displayed.

	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5	ENDING
05/22 FRI	0000	0000	0000	0000	0000	0000
05/23 SAT	0000	0000	0000	0000	0000	0000
05/24 SUN	0000	0000	0000	0000	0000	0000
05/25 MON	0000	0000	0000	0000	0000	0000
05/26 TUE	0000	0000	0000	0000	0000	0000
05/27 WED	0000	0000	0000	0000	0000	0000
05/28 FRI	0000	0000	0000	0000	0000	0000

- Pull the trigger to return to the "COIN DATA" menu screen.

5. 4 CONTINUE PLAY TIME TABLE

[Function]

The past week's totals data of total play time for one play is displayed.

	0s - 60s	61s - 120s	121s - 180s	181s - 300s	301s - 600s	601s - ENDING
05/22 FRI	0000	0000	0000	0000	0000	0000
05/23 SAT	0000	0000	0000	0000	0000	0000
05/24 SUN	0000	0000	0000	0000	0000	0000
05/25 MON	0000	0000	0000	0000	0000	0000
05/26 TUE	0000	0000	0000	0000	0000	0000
05/27 WED	0000	0000	0000	0000	0000	0000
05/28 FRI	0000	0000	0000	0000	0000	0000

- Pull the trigger to return to the "COIN DATA" menu screen.

5. 5 PLAY DETAILS

[Function]

Displays detailed data for one play.

TOTAL PLAY = 006

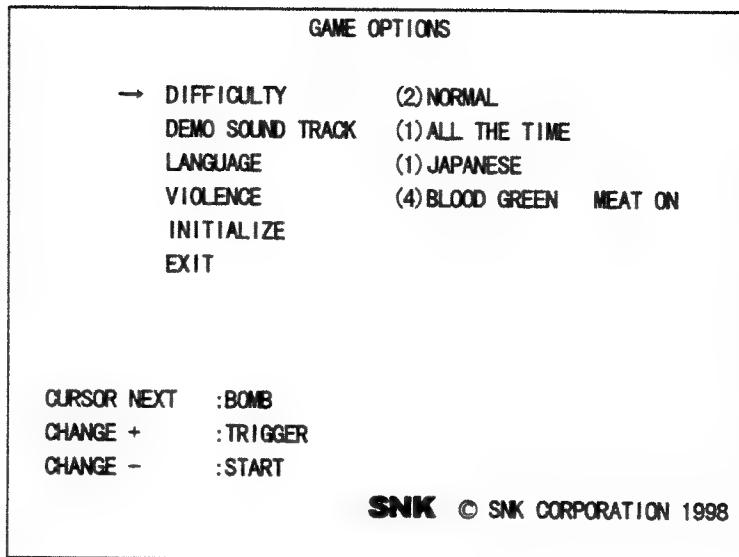
05/23 SAT	STAGE	FRAME	PLAY TIME	CONTINUE TIMES
001	1	0230	01:00	00
002	1	1566	00:45	00
003	1	1450	03:30	00
004	1	0780	02:00	00
005	1	0166	01:05	01
006	1	2560	00:55	02

[Contents for each select item]

- "TOTAL PLAY" displays the total number of plays for one day.
- "STAGE" displays the number of stages when the continue display appears during game play.
- "FRAME" displays the position in a stage when the continue display appears during game play.
- "PLAY TIME" displays the play time for one play.
- "CONTINUE TIMES" displays number of times a player continues game play.

- The amounts for 10 plays are simultaneously displayed on a single screen.
- The number of plays that can be saved in one day is 256 along with the amounts for the past week.
- Press the Start button to call up the previous day's data.
- Pull the trigger to return to the "COIN DATA" menu screen.

■ 6 GAME OPTION



[Function]

- Enables the setting of game difficulty levels, etc.
- Allows settings of basic game content.

- Initial settings are displayed by blue characters.

6. 1 DIFFICULTY

- ① EASY Sets game difficulty at easy level of play.
- ② NORMAL Sets game difficulty at normal level of play.
- ③ HARD Sets game difficulty at difficult level of play.
- ④ HARDEST Sets game difficulty at an extremely difficult level of play.

Initial Setting NORMAL

6. 2 DEMO SOUND TRACK

- ① ALL THE TIME Plays sound all the time during demo play.
- ② ONCE EVERY 2 Plays sound once for every two demo play runs.
- ③ ONCE EVERY 4 Plays sound once for every four demo play runs.
- ④ BGM OFF Not used.
- ⑤ SOUND OFF Turns all sounds off during demo play.

Initial Setting ALL THE TIME

- Choosing whether sounds will play or not can be done in "DEMO PLAY TIME" only.

6. 3 LANGUAGE

- ① JAPANESE Displays messages in Japanese.
- ② ENGLISH Displays messages in English.

Initial Setting ENGLISH

6. 4 VIOLENCE

- ① BLOOD GREEN MEAT OFF Displays blood in green.
Does not display gore.
- ② BLOOD GREEN MEAT ON Displays blood in green.
Displays gore.
- ③ BLOOD RED MEAT OFF Displays blood in red.
Does not display gore.
- ④ BLOOD RED MEAT ON Displays blood in red.
Displays gore.

Initial Setting BLOOD GREEN MEAT ON

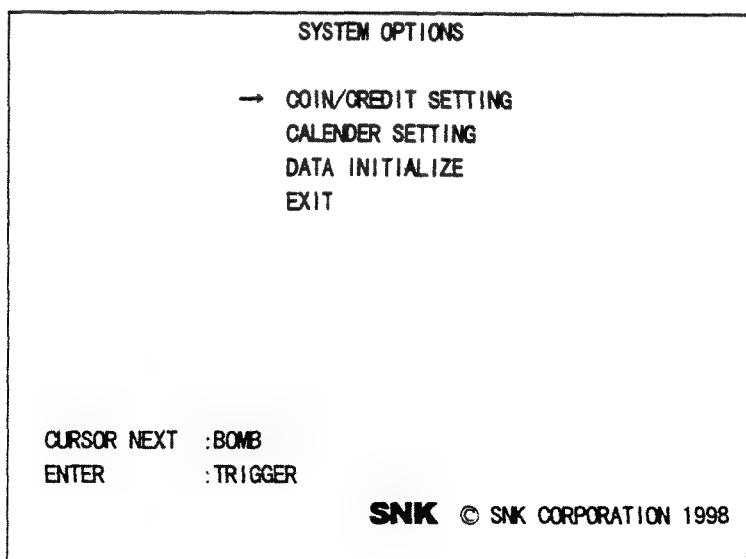
6. 5 INITIALIZE

[Function]

Sets all item data set with the "GAME OPTIONS" menu to their initial settings.

- Match the cursor to the "INITIALIZE" item on the menu screen and pull the trigger to return all items setting values at their initial values.

■ 7 SYSTEM OPTION

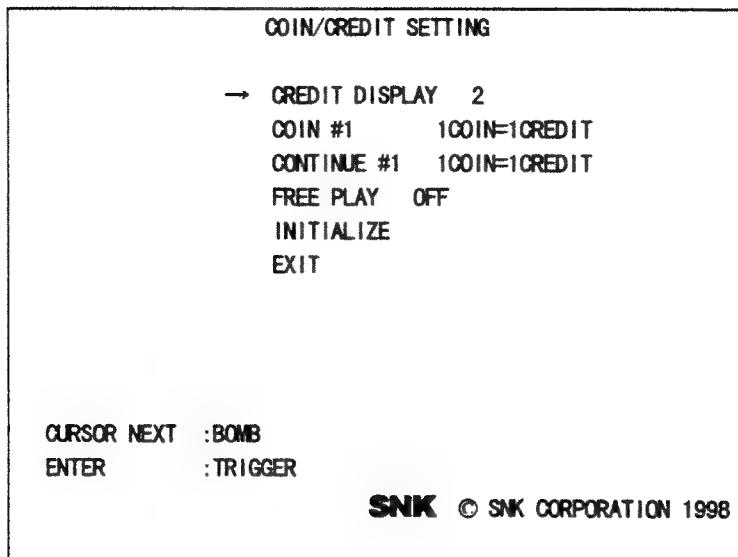


[Function]

Sets system information.

- ① Sets coin shooter and credit settings
- ② Sets Calendar settings
- ③ Initializes High Score and Income Data settings.

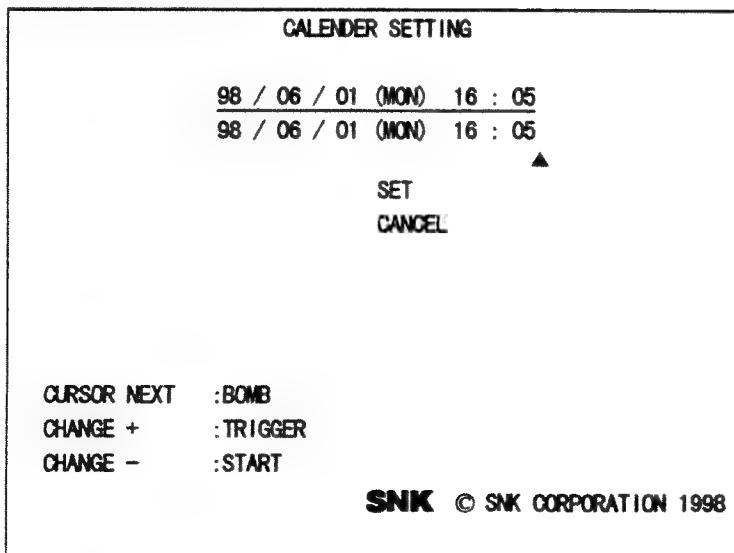
7. 1 COIN/CREDIT SETTING



- ① CREDIT DISPLAY Use this cabinet set at "2."
- ② Coin settings and credit settings From a maximum of 9 coins and 1 credit to 1 coin and 9 credits, settings are changed each time the trigger is pulled. Pull the trigger until the desired setting is displayed.
- ③ Coin settings and continue frequencies From 1 coin and 1 credit to 1 coin and 9 credits, settings are changed each time the trigger is pulled. Pull the trigger until the desired setting is displayed.
- ④ FREE PLAY Turns free play on and off.
Each time the trigger is pulled, free play is turned on or off.
- ⑤ INITIALIZE Returns settings to their initialized values.
Match the cursor to this item and pull the trigger to set each item to their initial settings.

- When free play is switched ON, credit settings become invalid.
- Match the cursor to "EXIT" and pull the trigger to return to the "SYSTEM OPTIONS" menu screen.

7. 2 CALENDAR SETTING



[Function]

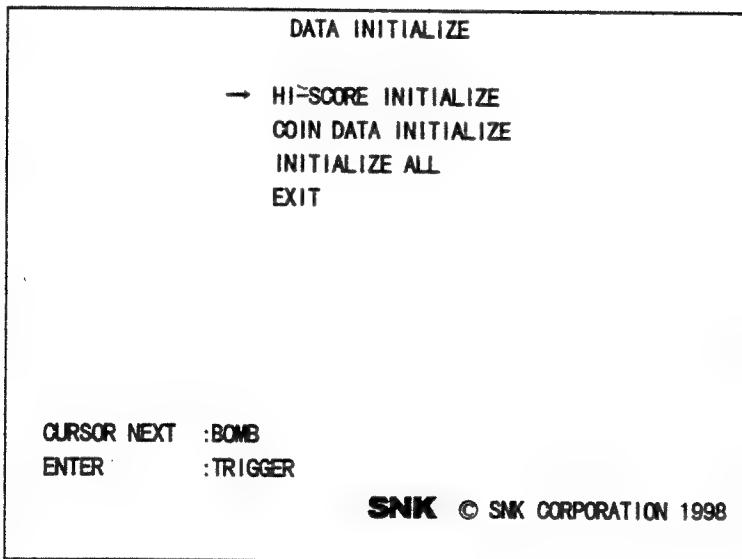
Resets calendar settings.

[Setting Procedures]

1. The upper display shows current setting values. Resetting lower display values resets the calendar readings.
2. Match the cursor to the item you want to change, such as date, day, time, etc., with the bomb switch.
3. Change the item to which the cursor has been matched using the trigger or the Start switch.
4. With the cursor matched to "SET", pull the trigger to change the "CANCEL" message to the "EXIT" message.
Match the cursor to "EXIT" and pull the trigger to return to the "SYSTEM OPTIONS" menu screen.

- With the cursor matched to "CANCEL," pull the trigger to return to the "SYSTEM OPTIONS" menu screen. At this time, the calendar will not be reset.

7. 3 DATA INITIALIZE



- ① HI-SCORE INITIALIZEInitializes high score data.
- ② COIN DATA INITIALIZEInitializes income data.
- ③ INITIALIZE ALLInitializes the two item settings listed above.

[Operation Procedures]

1. Match the cursor to the item settings you wish to delete and when you pull the trigger, "YES" and "NO" messages will appear.
2. When you match the cursor to "YES" and pull the trigger, data is deleted and an "OK" message appears. Pull the trigger again to return to the "DATA INITIALIZE" menu screen.
3. When you match the cursor to "NO" and pull the trigger, data is left as is and the "DATA INITIALIZE" menu screen is called up.

■ Safety Precautions



Danger

- When performing maintenance on the cabinet, be sure to do so after the power is turned off. Doing so when the power is not turned off may result in electric shock.
- Absolutely do not try to copy or modify this cabinet. Doing so may cause fire and electric shock.
- Do not use parts in this cabinet other than those specified by the SNK Corporation. Doing so may cause accidents and breakdowns.
- Make sure all connectors in the cabinet are connected tightly. Loose and partial or incorrect connections may cause accidents such as fire and electric shock.



Warning

- Do not apply volatile liquid cleaners like benzene, alcohol, thinner, and insecticides to the cabinet. This may cause paint and stickers to peel and ruin the luster of the cabinet's finish.

■ Changing Fluorescent Lights



Danger

- When replacing lamps and fluorescent lights, be sure to begin procedures after turning off the cabinet and pulling out the plug.
- Do not strongly jolt lamps and fluorescent lights. Doing so may cause personal injury and accidents from breakage.

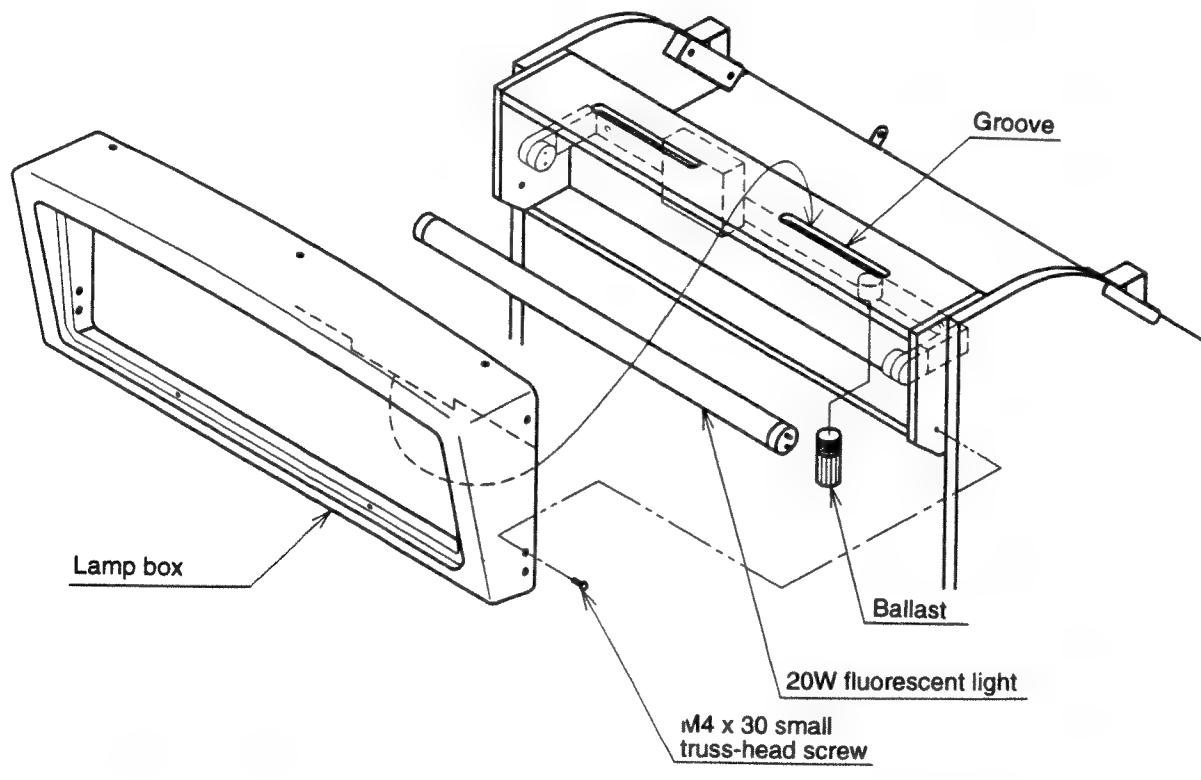


Warning

- Even when the power has been turned off, lamps, fluorescent lights and surrounding areas may still be extremely hot. When working on the cabinet, make sure such parts have cooled sufficiently. Failing to check these parts and working on the cabinet may result in accidents and burns.
- Use a step ladder for changing fluorescent lights. Failing to do so may cause accidents and personal injury.

Prepare the items listed below before beginning procedures.

- Tools Phillips screwdriver



1. Remove the M4 x 30 small truss-head screws from the positions shown in the diagram. (There is one screw on each side.)
2. Raise the lamp box slightly and pull it out toward you. (The lamp box fits into the grooves on top of the monitor section.)
3. Replace the fluorescent light tube (20W) and ballast (FG1E) with new ones.
4. Attach the lamp box following the procedures above in reverse.

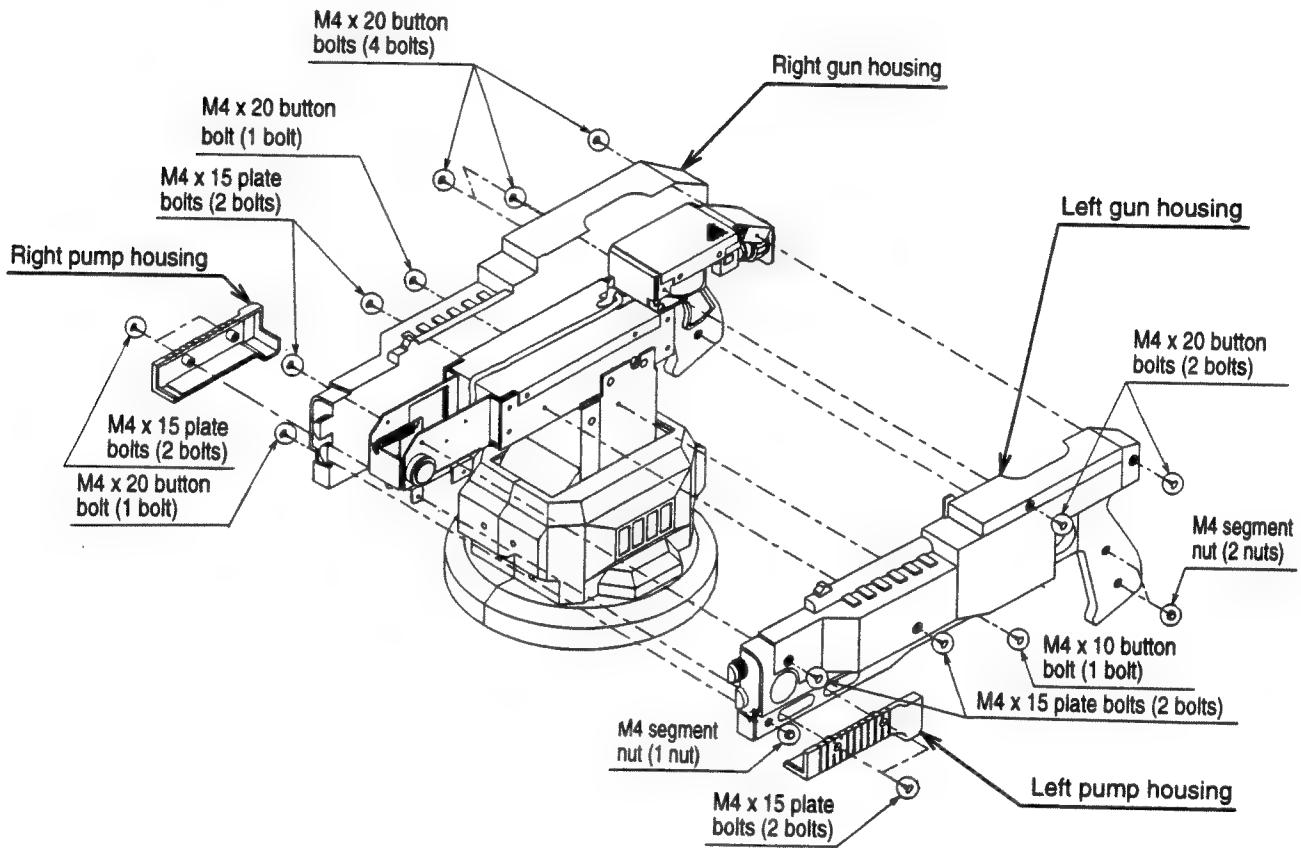
■ Removing the Gun Safety Housing



- Be sure to turn the cabinet off before beginning procedures.

Prepare the items listed below before beginning procedures.

- Accessory 2.5 mm hexagonal wrench



1. With the included hexagonal wrench, remove the two M4 × 15 plate bolts on the right and left side and remove the left and right pump housings.
2. With the included hexagonal wrench, remove the two M4 × 15 plate bolts, the M4 × 10 button bolts, and the five M4 × 20 button bolts. Then remove the three M4 segment nuts and remove the right gun housing.
 - Be careful not to lose the M4 segment nuts.
3. With the included hexagonal wrench, remove the two M4 × 15 plate bolts, M4 × 10 button bolt, and the two M4 × 20 button bolts. Then remove the gun housing.
4. Follow the procedures above in reverse to attach the gun and pump housings.

■ Changing Illuminated Push Button Switch (Start Switch) Lamps

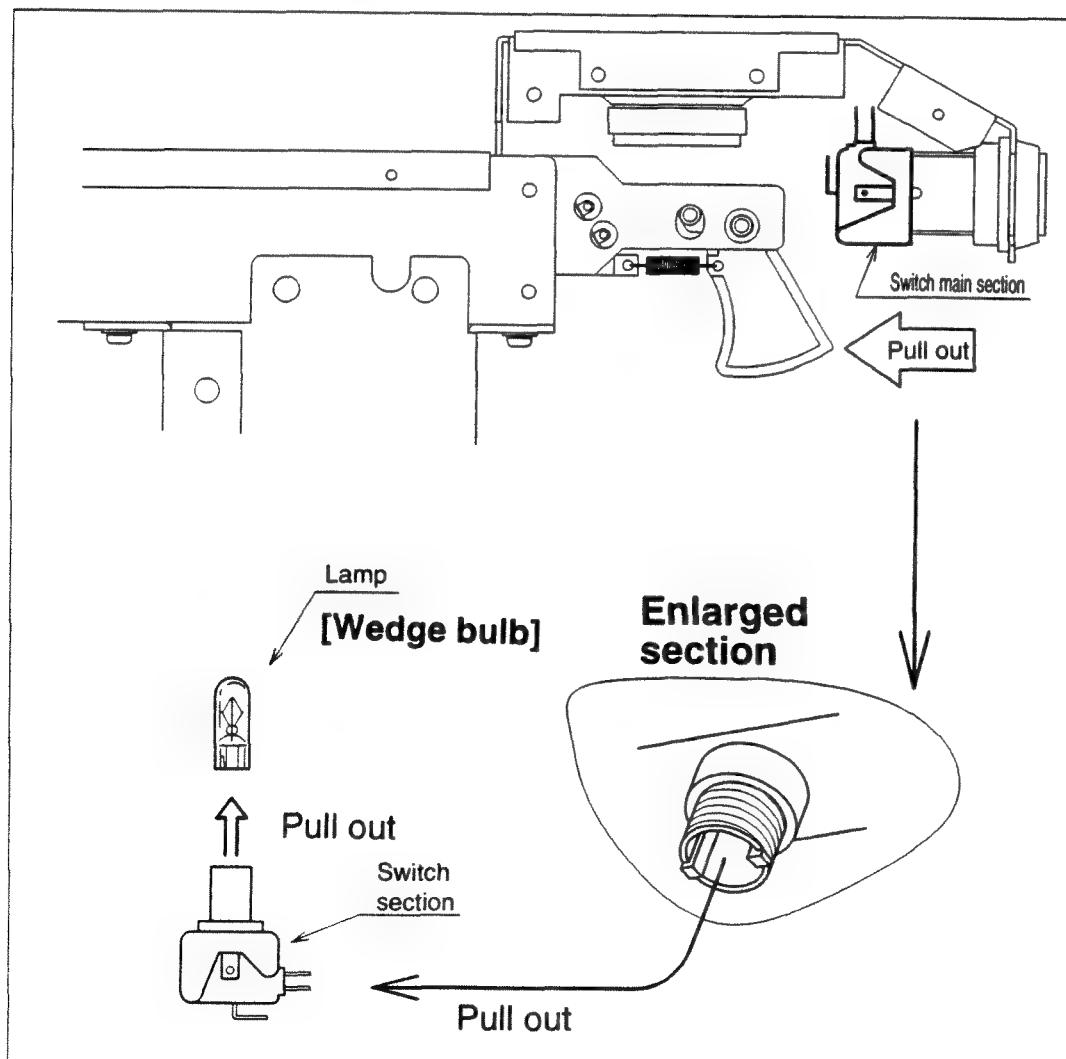


- Be sure to turn the cabinet off before beginning procedures.

Prepare the items listed below before beginning procedures.

- Accessory 2.5 mm hexagonal wrench

1. Remove the gun housing.
2. Pull out the main section of the Start switch.
3. Pull out the lamp as shown in the diagram below and replace with a new one.



■ Changing Microswitches



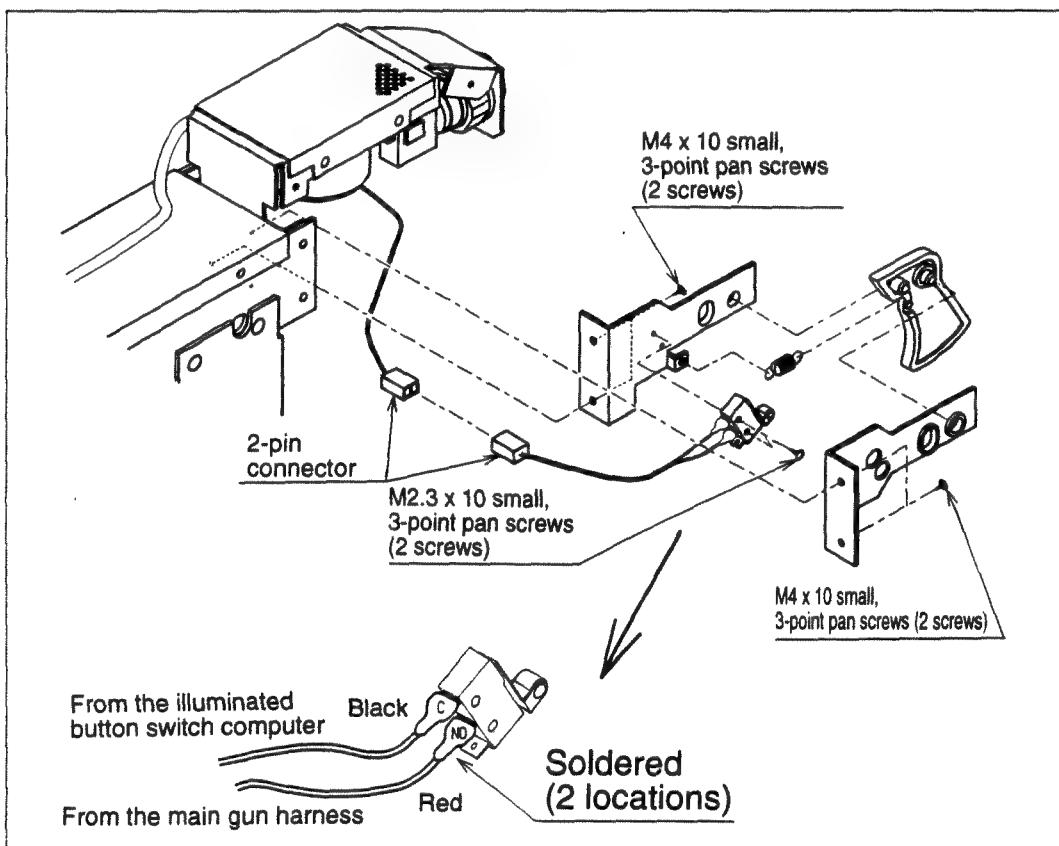
Warning

- Be sure to turn the cabinet off before beginning procedures.
- When disconnecting connectors, be sure to pull the connector's main section without pulling on the cord.

Prepare the items listed below before beginning procedures.

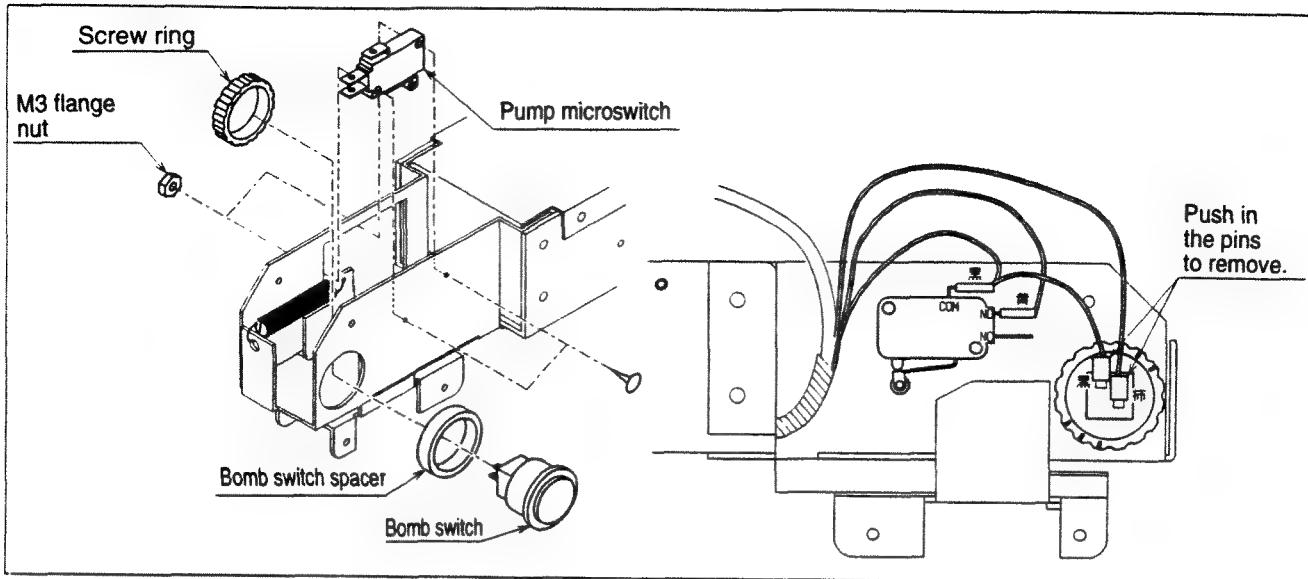
- Accessory 2.5 mm hexagonal wrench
- Tools Phillips screwdriver, soldering iron, radio wrench, vinyl (duct) tape

● Microswitch for Trigger



1. Remove the gun housing.
2. Remove the 2-pin connector shown in the diagram.
3. Removing the four M4 x 10 small, 3-point pan screws, as shown in the diagram, makes it possible to take the trigger section apart.
4. Removing the two M2.3 x 10 small, 3-point pan screws as shown in the diagram and remove the microswitch.
5. Remove the 2-pin harness from the microswitch and solder on a new microswitch.
- Insulate the terminal with vinyl (duct) tape.
6. After replacing the microswitch with a new one, assemble the parts following the above procedures in reverse.
- When assembling the parts, be careful not to pinch wires between parts.

● Changing Microswitches for the Pump and Bomb Switches



1. Remove the gun housing.
2. When changing the microswitch for the pump, remove the two M3 x 10 plate screws and the two M3 flange nuts shown in the diagram and replace with a new one.
3. When changing the bomb switch, remove the screw ring shown in the diagram and replace with a new one.

■ Removing and Attaching the Gun Stand Cover

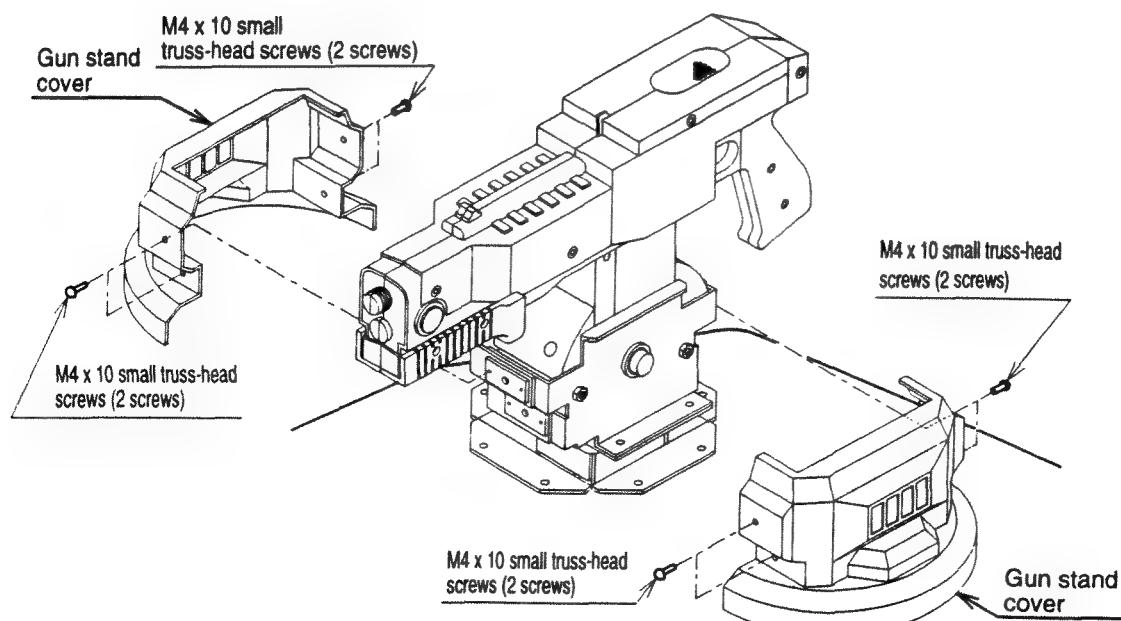


- Be sure to turn the cabinet off before beginning procedures.

Prepare the items listed below before beginning procedures.

- Tools Phillips screwdriver (with a total length of 150 mm or less)

Remove the four small truss-head screws in the front and back of the gun stand cover to enable the removal of the left and right covers.



■ Changing Volume Modules

- Changing volume knobs for the upper and lower sensors

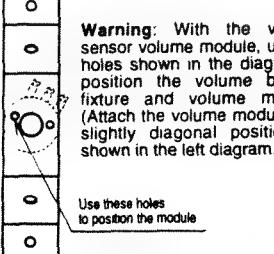
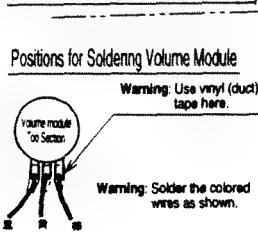
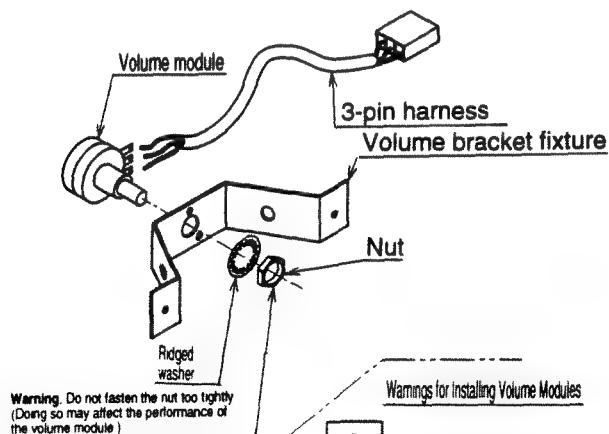
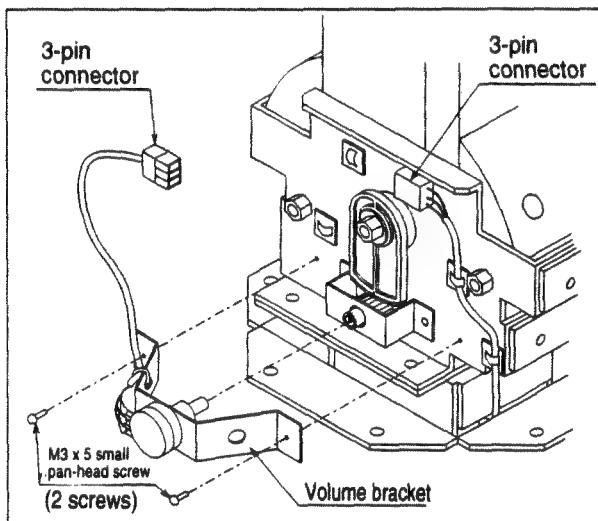


- Be sure to turn the cabinet off before beginning procedures.
- When disconnecting connectors, be sure to pull the connector's main section without pulling on the cord.

Prepare the items listed below before beginning procedures.

- Tools Phillips screwdriver (with a total length of 150 mm or less), subtensil 12mm spanner, soldering iron, vinyl (duct) tape

The volume module for the upper and lower sensor is on the right side of the gun unit assembly. When it becomes old, the crosshairs will not synchronize vertically and will need to be replaced.



1. Remove the gun stand.
2. Remove the 3-pin connector.
3. Remove the M3 x 5 small pan-head screws and the volume bracket.
4. Remove the nut and ridged washer, then remove the volume module from the volume socket.
5. Remove the 3-pin harness from the old volume module and solder on a new one.
 - Be careful of wire colors.
 - Insulate the terminals with vinyl (duct) tape.
6. Attach the new volume module into the volume bracket.
 - Be careful of the orientation of the volume when installing it.
 - Do not fasten the nut too tightly.
7. Attach the volume bracket to the gun unit assembly and connect the 3-pin connector.
8. Attach the gun stand covers.

● Changing Volume Modules for the Horizontal Sensor

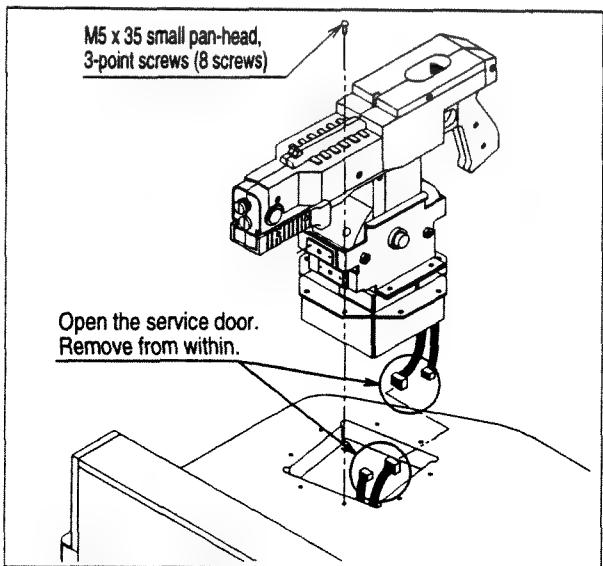


- Be sure to turn the cabinet off before beginning procedures.
- When disconnecting connectors, be sure to pull the connector's main section without pulling on the cord.
- Because this unit is quite heavy at 10kg, be very careful when doing procedures.

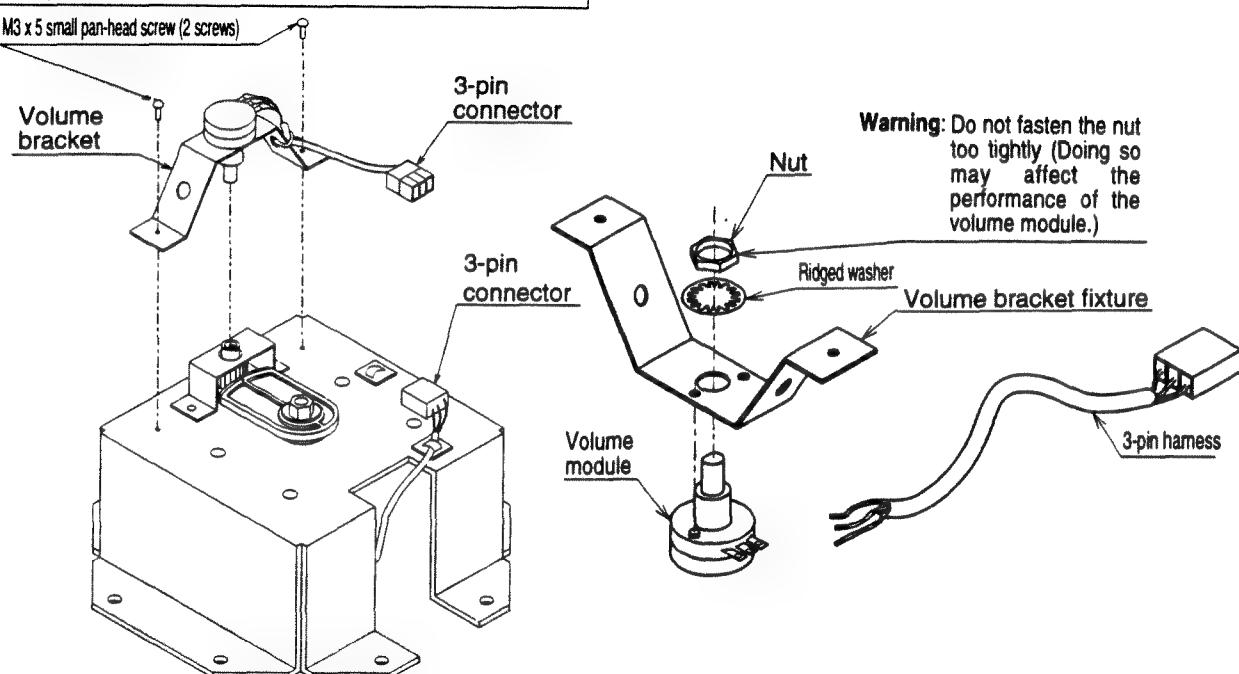
Prepare the items listed below before beginning procedures.

- Accessories.....Master keys
- ToolsPhillips screwdriver (with a total length of 150 mm or less), subtensil 12mm spanner, soldering iron, vinyl (duct) tape

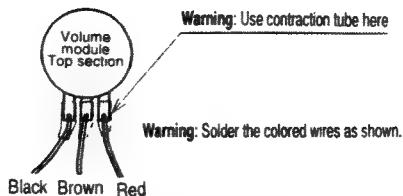
The volume module for the left and right sensors is located in the lower section of the gun unit assembly. When it becomes old, the crosshairs will not synchronize vertically and will need to be replaced.



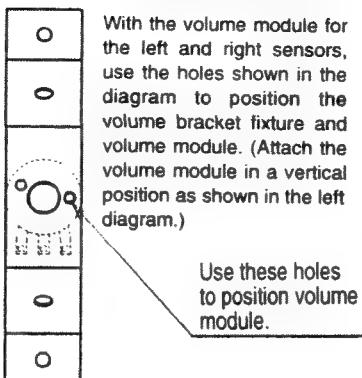
1. Remove the gun stand cover.
2. Open the service door and look inside. In the forward upper section there are two 6-pin and 12-pin connectors each. If the gun being worked on is the Player 1 gun, remove the white 6-pin and 12-pin connectors. If it's the Player 2 gun, remove the red 6-pin and 12-pin connectors.
3. Remove the eight M5 × 35 small pan-head screws and remove the gun unit assembly from the control section.
4. Following the same procedures for the volume module for the up and down sensors, remove the volume bracket from the gun unit assembly and the volume module from the volume bracket.



Positions for Soldering Volume Module



Warnings for Installing Volume Modules



5. Remove the 3-pin harness from the old volume module and solder on a new one.

- Be careful of wire colors.
- Insulate the terminals with vinyl (duct) tape.

6. Attach the new volume module into the volume bracket.

- Be careful of the orientation of the volume when installing it.
- Do not fasten the nut too tightly.

7. Attach the volume bracket to the gun unit assembly and connect the 3-pin connector.

8. Follow the procedures for removing the gun assembly in reverse order to attach it to the control section and attach the gun stand cover.

● Adjusting Volume

1. Turn on the cabinet and begin the "Analog Standard Values" test in the Test Mode (See p. 34)
2. With the "Input Test" in the Test Mode, check to see values are normal. (See p. 33.)

■ Changing Fuses



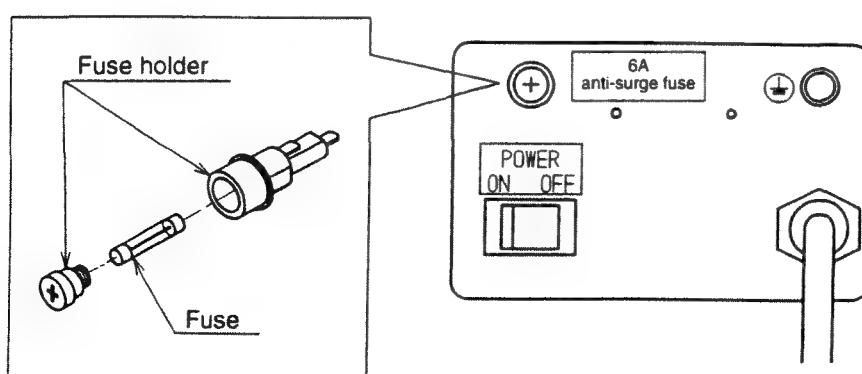
- Be sure to turn the cabinet off before beginning procedures.
- Absolutely do not use fuses other than those specified herein.

Prepare the items listed below before beginning procedures.

- Tool.....Phillips screwdriver

1. Open the fuse holder located in the rear power unit section.

2. Replace the old fuse with a new 6 A (ampere) anti-surge type fuse.



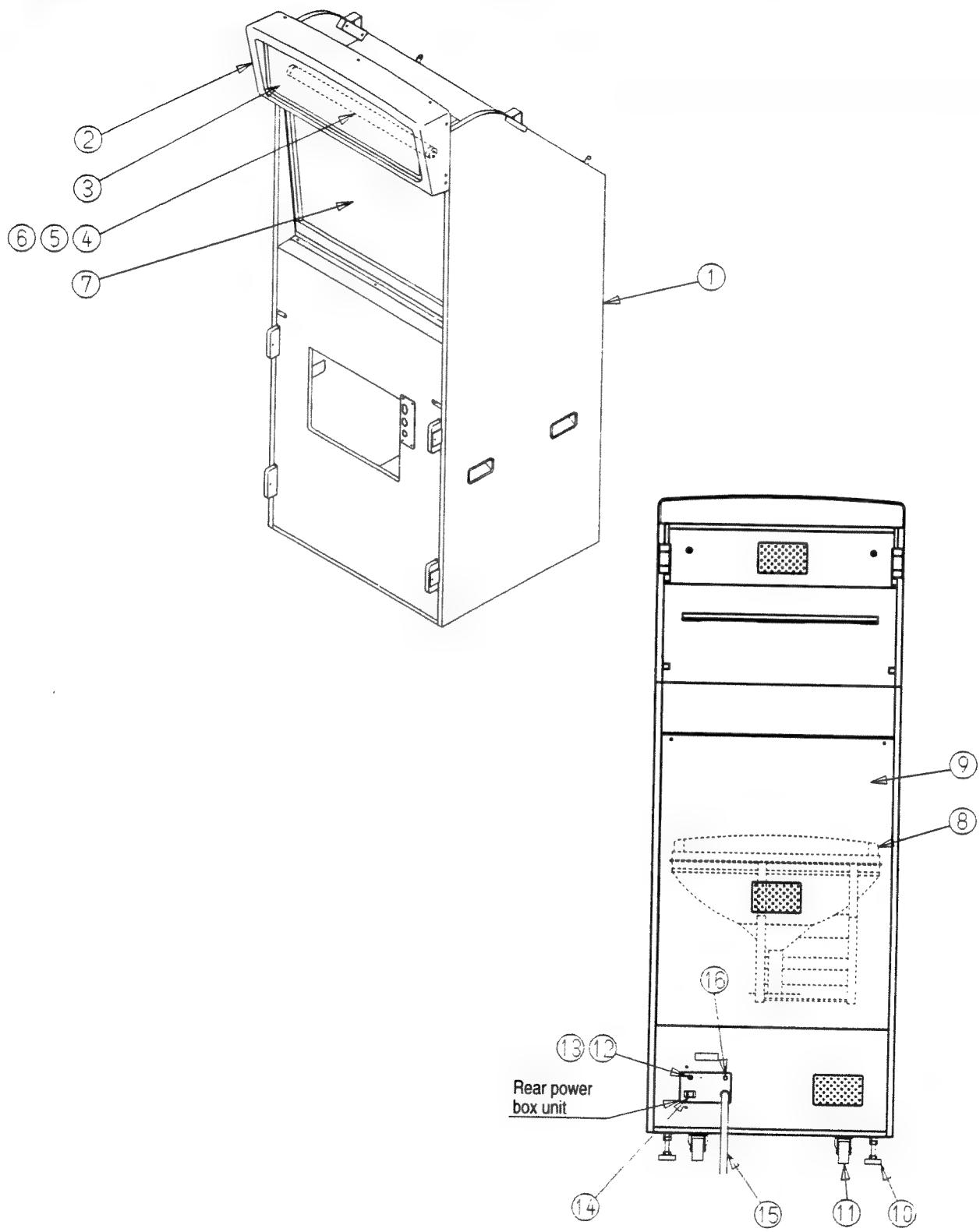
Disposal



- When disposing of this cabinet, make sure you do so according to the laws of your area concerning collection, shipping, and disposal.
- When disposing of this cabinet through the agency of another, be sure to do this through an agency qualified in the collection, shipping, and disposal of products of this kind.

Parts List

● Monitor Section

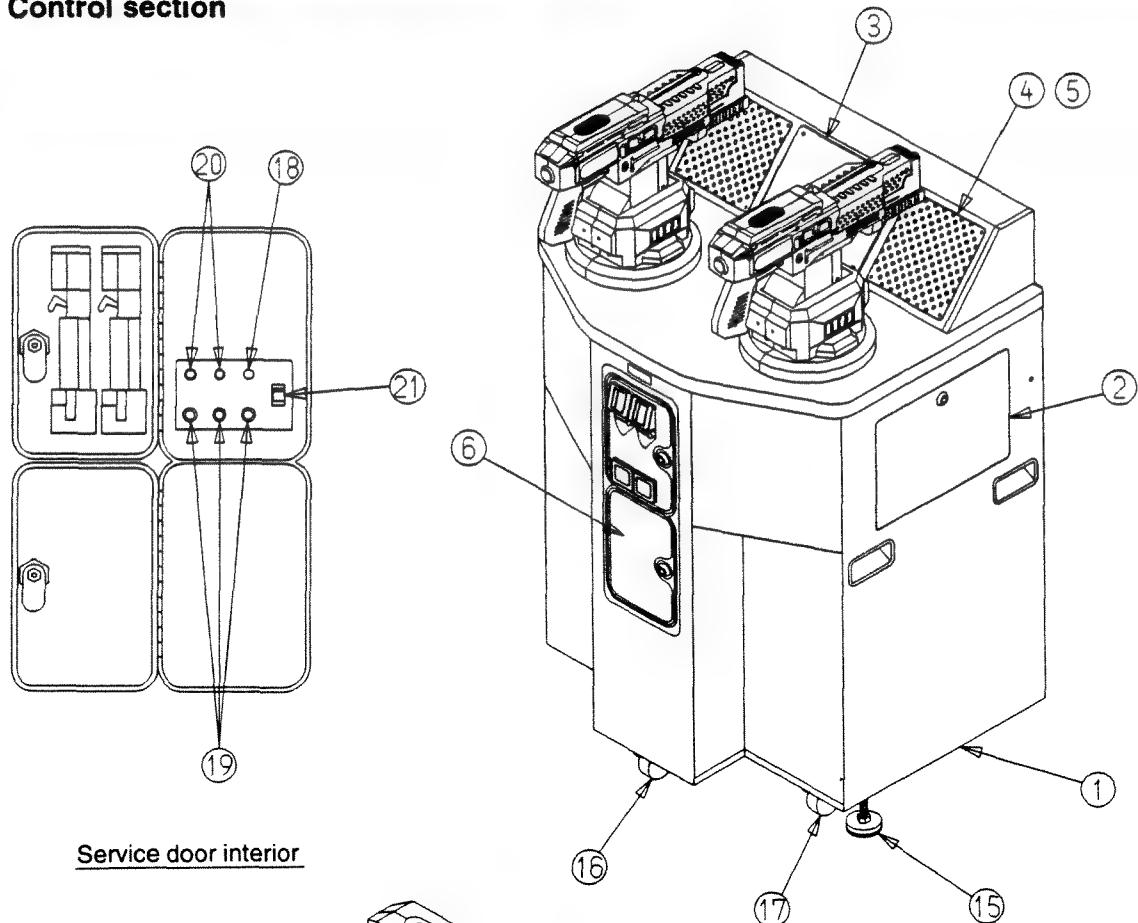


Rear diagram

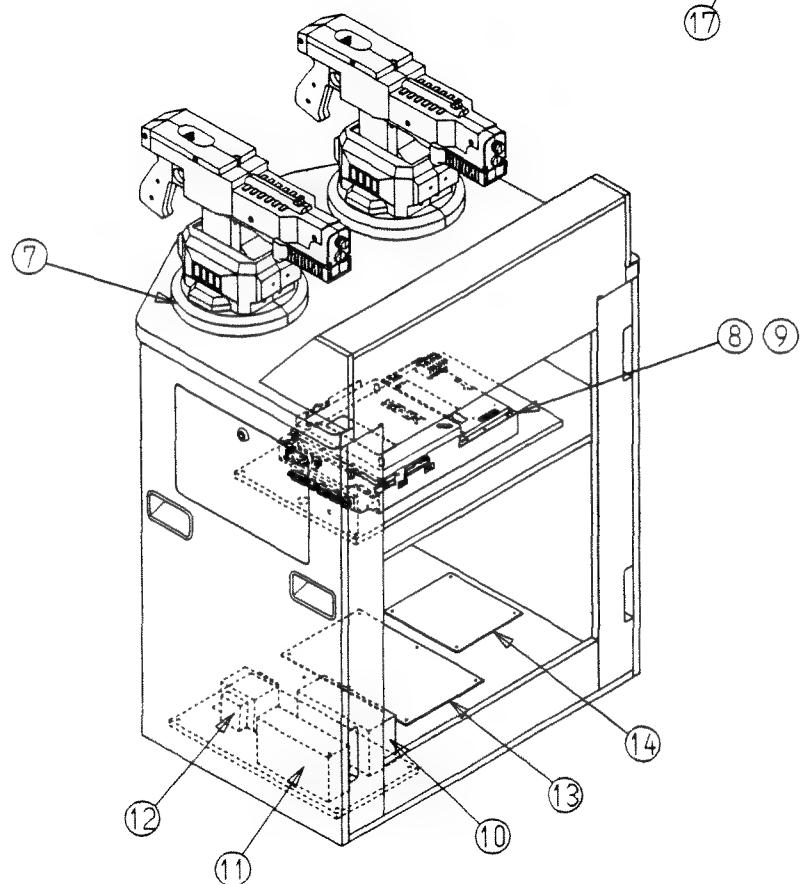
No.	Part name	Part code	Qty.	Comments
1	Monitor cabinet	590301693	1	
2	Lamp box	570300693	1	
3	Electric decoration panel	570310693	1	
4	Fluorescent light tube, 20W	301204	1	
5	Ballast	302301	1	
6	Fluorescent light holder, 20W	342201	1	
7	Monitor cover	570321693	1	
8	29-inch CRT monitor	3122903	1	
9	Rear door	590311693	1	
10	Adjusters	471734	4	
11	Free casters	46242065	4	
12	Fuse	3036	1	6A, anti-surge type
13	Fuse holder	352130	1	
14	Power switch	332208	1	
15	Power harness	370300693	1	
16	Ground terminal	353381	1	

Parts List

● Control section

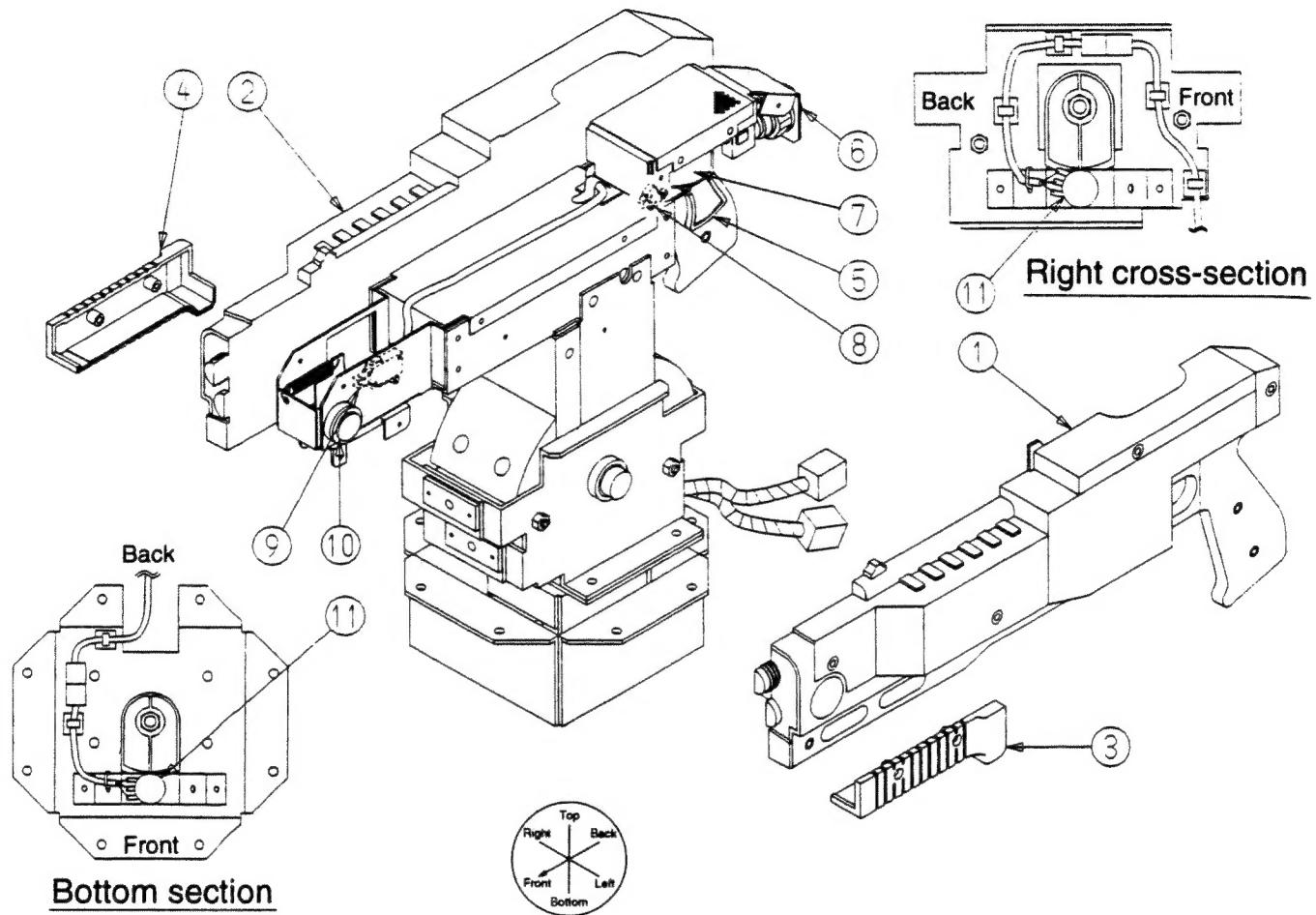


Service door interior



No.	Part name	Part code	Qty.	Comments
1	Control section cabinet	590101693	1	
2	Side door	590111693	1	
3	Playing card panel	570100693	1	
4	Speakers	444062	2	
5	Speaker covers	510110693	2	
6	Service door	41722010	1	Cash box, coin counter, selector included
7	Gun stand covers	573090693	4	
8	NEO 64 "Beast Busters 2" software cartridge		1	
9	Hyper NEO GEO 64 PCB		1	
10	Switching regulator (12V)	199302	1	
11	Switching regulator (5V)	199301	1	
12	Transformer (9.5V)	32295693	1	
13	Audio power amp PCB		1	
14	Digital output expansion PCB		1	
15	Adjusters	471734	2	
16	Fixed caster	46142065	1	
17	Free casters	46242065	4	
18	Degaussing switch	3311214	1	
19	Speaker volume knobs	30724502	2	
20	Service/Test switches	3314122	3	
21	Power switch	332208	1	

● Gun Assembly



No.	Part name	Part code	Qty.	Comments
1	Left gun housing	583011693	1	
2	Right gun housing	583020693	1	
3	Left pump housing	583040693	1	
4	Right pump housing	583050693	1	
5	Trigger	583030693	1	
6	Illuminated push-button, thick type (red)	33614121	1	
7	Speaker	4481024	1	
8	Trigger microswitch	334521	1	
9	Pump microswitch	33455113	1	
10	Bomb switch	33124122	1	
11	Volume module	3072020	2	

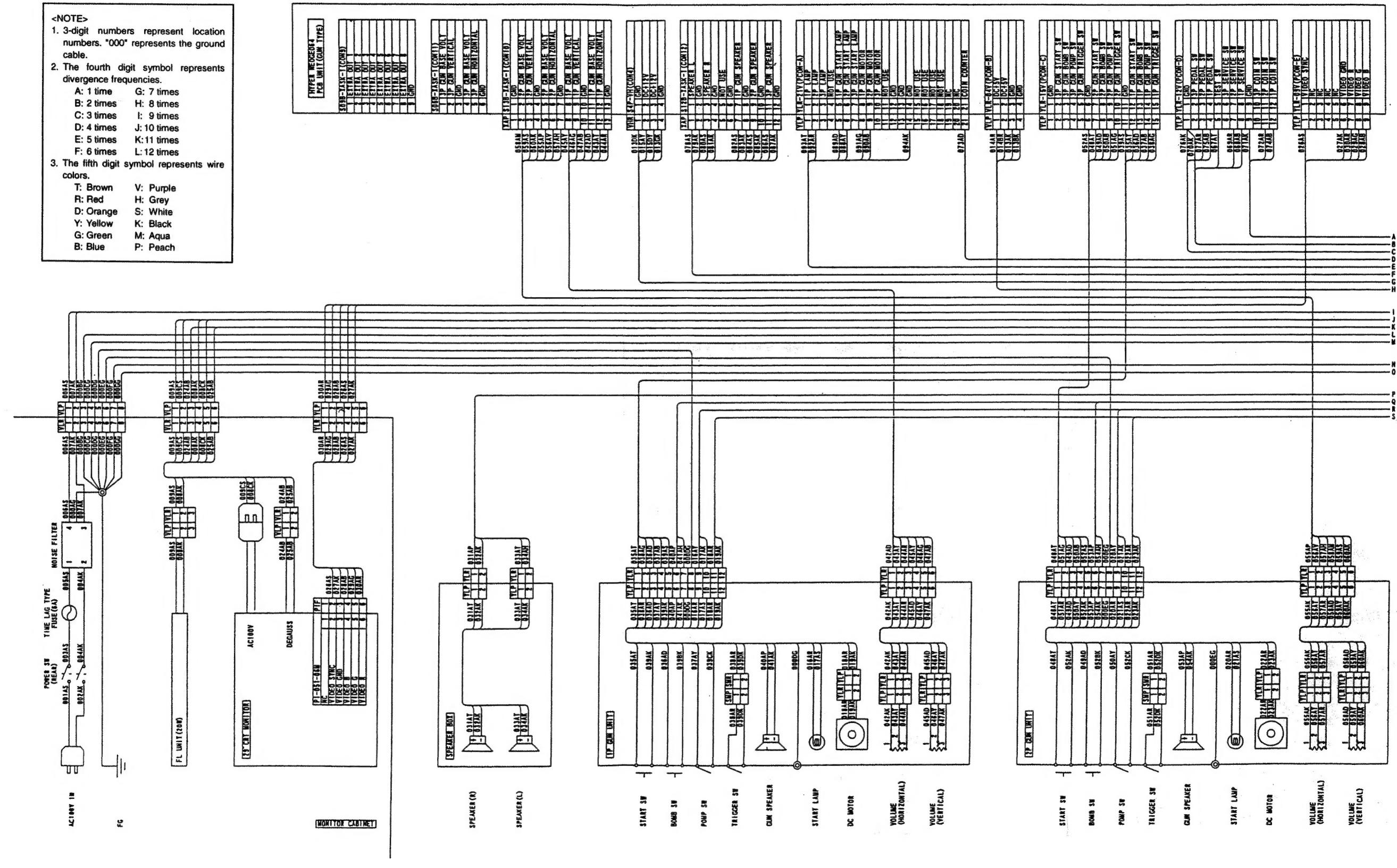
BEAST BUSTERS SECOND NIGHTMARE WIRING DIAGRAM (1/2)

<NOTE>

- 3-digit numbers represent location numbers. "000" represents the ground cable.
- The fourth digit symbol represents divergence frequencies.

A: 1 time	G: 7 times
B: 2 times	H: 8 times
C: 3 times	I: 9 times
D: 4 times	J: 10 times
E: 5 times	K: 11 times
F: 6 times	L: 12 times
- The fifth digit symbol represents wire colors.

T: Brown	V: Purple
R: Red	H: Grey
D: Orange	S: White
Y: Yellow	K: Black
G: Green	M: Aqua
B: Blue	P: Peach



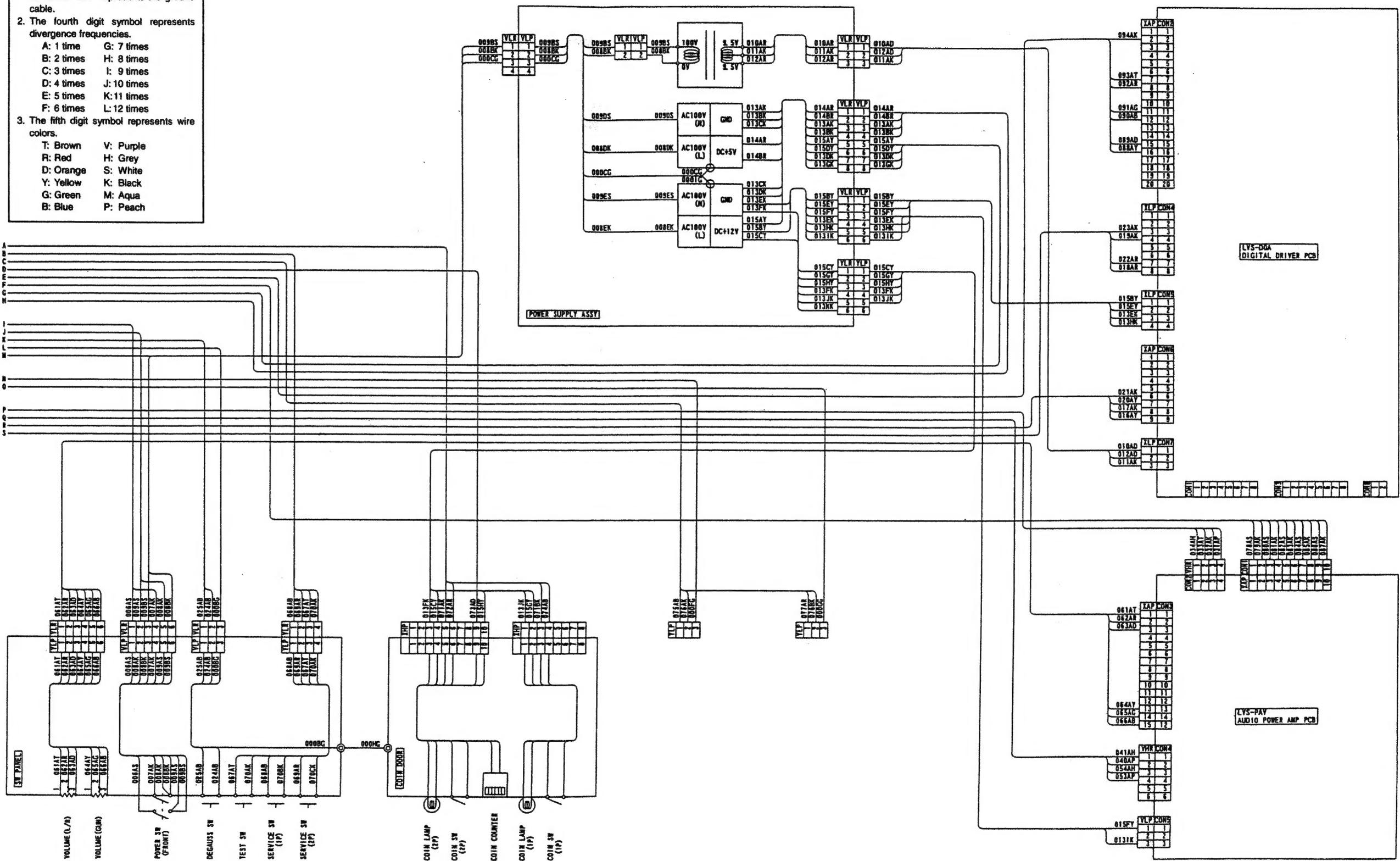
BEAST BUSTERS SECOND NIGHTMARE WIRING DIAGRAM (2/2)

<NOTE>

1. 3-digit numbers represent location numbers. "000" represents the ground cable.
2. The fourth digit symbol represents divergence frequencies.

A: 1 time	G: 7 times
B: 2 times	H: 8 times
C: 3 times	I: 9 times
D: 4 times	J: 10 times
E: 5 times	K: 11 times
F: 6 times	L: 12 times
3. The fifth digit symbol represents wire colors.

T: Brown	V: Purple
R: Red	H: Grey
D: Orange	S: White
Y: Yellow	K: Black
G: Green	M: Aqua
B: Blue	P: Peach





SNK CORPORATION 1-6 ENOKI-CHO, SUITA-SHI, OSAKA, 564-0053, JAPAN TELEPHONE: (81) 6-339-5577 FAX: (81) 6-338-7175
SNK CORPORATION OF AMERICA 17 GREAD OAKS BLVD. SAN JOSE, CA 95119, U.S.A. TELEPHONE: (1) 408-292-4550 FAX: (1) 408-292-4271
SNK ASIA LIMITED SUITE 807, TOWER 1, THE GATEWAY, 25 CANTON ROAD, TSIM SHA TSUI, KOWLOON, HONG KONG TELEPHONE: (852) 2-730-0420 FAX: (852) 2-375-3203
SNK SINGAPORE PTE LTD. 7 TEMASEK BOULEVARD #12-02A SUNTEC CITY TOWER ONE SINGAPORE 038987 TELEPHONE: (65) 336-7877 FAX: (65) 336-2270
SNK EUROPE LIMITED 2ND FLOOR, MARLBOROUGH HOUSE, 298 REGENTS PARK ROAD, LONDON N3 S2Z ENGLAND TELEPHONE: (44) 181-371-9911 FAX: (44) 181-371-9890
NEO GEO DO BRASIL LTDA. AV. EUCLIDES, 56-JABAQUARA CEP: 04326-080-SÃO PAULO-SP BRAZIL TELEPHONE: (55) 11-5588-2300 FAX: (55) 11-5588-2790
SNK CORPORATION MIDDLE EAST P.O.BOX 17306 JEBEL ALI FREE ZONE, DUBAI, UNITED ARAB EMIRATES TELEPHONE: (971) 4-814602 FAX: (971) 4-814605